

STATE OF MICHIGAN  
 DEPARTMENT OF MANAGEMENT AND BUDGET  
 PURCHASING OPERATIONS  
 P.O. BOX 30026, LANSING, MI 48909  
 OR  
 530 W. ALLEGAN, LANSING, MI 48933

September 10, 2009

**CHANGE NOTICE NO.2**  
**TO**  
**CONTRACT NO. 071B6200209**  
**between**  
**THE STATE OF MICHIGAN**  
**and**

NAME & ADDRESS OF VENDOR  <b>enfoTech &amp; Consulting, Inc.</b> <b>11 Princess Road, Unit A</b> <b>Lawrenceville, NJ 08648</b>  <b>tony_jeng@enfotech.com</b>	TELEPHONE Tony Jeng <b>609-896-9777, Ext 107</b>
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-3215 <b>Steve Motz</b>
Contract Compliance Inspector: Patty Bogard <b>Michigan Environmental Results Program (MERP) Dry Cleaning Sector Data Integration System</b>	
CONTRACT PERIOD: From: <b>October 1, 2006</b> To: <b>October 1, 2010</b>	
TERMS <b>Net 45 Days</b>	SHIPMENT <b>N/A</b>
F.O.B. <b>N/A</b>	SHIPPED FROM <b>N/A</b>
MINIMUM DELIVERY REQUIREMENTS <b>N/A</b>	

**NATURE OF CHANGE(S):**

Effective immediately, the Phase 1 pricing table (Attachment F) has been replaced with the attached revised Attachment F to reflect the modification of deliverable line items 1B.8 and 1E.1. Attachment A-Service and Support Agreement is hereby incorporated into this contract. The state is exercising Option Year 1, and this contract is hereby EXTENDED to October 1, 2010. All other terms and conditions remain the same.

**AUTHORITY/REASON(S):**

Per agency and vendor agreement.

**TOTAL ESTIMATED CONTRACT VALUE REMAINS: \$395,840.00**

**Attachment F**  
Pricing

<b>PHASE I Deliverables</b>	<b>Cost</b>
<b>(1A) Project Management</b>	
(1) Develop Project Plan Document that will include the following: <ul style="list-style-type: none"> <li>▪ Project Overview</li> <li>▪ Project Tasks and Descriptions</li> <li>▪ Project Timeline</li> <li>▪ Project Organization: Roles and Responsibilities</li> <li>▪ Communication Procedures</li> </ul>	<b>\$ 7,040</b>
<b>Total Cost for Part 1A</b>	<b>\$ 7,040</b>
<b>(1B) Dry Cleaning Tracking Database &amp; System Development</b>	
(1) Functional Requirements gathering	\$ 5,900
(2) Development of System Design and System Design Documentation	\$ 6,000
(3) Modifications to existing Dry Cleaning Database including data dictionary for a functional Dry Cleaning System	\$ 6,480
(4) Development of data tracking system (interface & business tier) for MDEQ staff	\$ 24,360
(5) Testing of the System and enhancements to the Database	\$ 3,120
(6) Installation & Admin Training (1 day training covering configuration & administration)	\$ 3,860
(7) MDEQ Staff End User Training for Dry Cleaning Data Tracking System	\$ 4,150
(8) One-year MERP-Dry Cleaning System support & maintenance and transfer knowledge to DIT for ongoing support and maintenance (9/30/2009 – 10/1/2010)	\$ 12,840
<b>Total Cost for Part 1B</b>	<b>\$ 66,710</b>
<b>(1C) Development of Customized Field Inspection Program &amp; Implementation</b>	
(1) Form Design & Design Documentation	\$ 4,320
(2) Development of one field inspection report	\$ 19,120
(3) Development of data synch functionality with Dry Cleaning System (bi-directional)	\$ 11,400
(4) Testing of Customized Field Inspection Program	\$ 2,760
(5) Delivery of final inspection forms after testing is completed	\$ N/C
<b>Total Cost for Part 1C</b>	<b>\$ 37,600</b>
<b>(1D) Development of Form Scanning &amp; Extraction</b>	
(1) Technical consultation on selection of OCR software	\$ 4,320
(2) Other Direct Costs	\$ See Below**
<b>Total Cost for Part 1D</b>	<b>\$ 4,320</b>
<b>FINAL PAYMENT</b>	
Final Payment will be made in accordance with Section 1.502 Final Acceptance	<b>\$ 6,000</b>
<b>(1E) Integration Support &amp; Maintenance</b>	
(1) 2 <sup>nd</sup> Year of Integration Support & Maintenance (10/01/2010 – 07/31/2011 If 1 <sup>st</sup> Year of Maintenance is Purchased before 9/30/2009)	\$ No Charge
(2) 3 <sup>rd</sup> <i>Optional</i> Year of Integration Support & Maintenance (08/1/2011 – 07/31/2012)	\$ 11,025
(3) 4 <sup>th</sup> <i>Optional</i> Year of Integration Support & Maintenance (08/1/2012 – 07/31/2013)	\$ 11,576
(4) 5 <sup>th</sup> <i>Optional</i> Year of Integration Support & Maintenance (08/1/2013 – 07/31/2014)	\$ 12,155
<b>Total Cost for Part 1E</b>	<b>\$ 34,756</b>
<b>Grand Total For Phase I (Excluding Optional Years 3-5 Maintenance Costs)</b>	<b>\$ 121,670</b>
<b>Grand Total For Phase I (Including Optional Years 3-5 Maintenance Costs)</b>	<b>\$ 156,426</b>



Sales: 609.896.9777  
Support: 609.896.2827  
Fax: 609.896.2555  
[www.enfotech.com](http://www.enfotech.com)

September 15, 2009

Jeff Beasley  
Project Manager  
Michigan Department of Information Technology  
525 W Allegan St  
Lansing, MI 48933-1502

**Subject: Annual System Maintenance Proposal - MERP System**

Dear Mr. Beasley:

enfoTech provides software development, installation, and support of environmental information systems for the DEQ under certain contracts. These contracts provide an option for the DEQ to retain enfoTech to provide system maintenance and support services after the systems go into production. This proposal provides an annual cost estimate for maintaining the MERP system.

Based on the amended MERP contract, the first year of annual maintenance fee will be \$12,840. Once paid, enfoTech will provide additional 10 months of maintenance at no cost. Assuming that the annual maintenance begins on October 1, 2009, the 1st year's annual maintenance will end on September 30, 2010. The additional 14 months of free maintenance will begin on October 1, 2010 and end on July 31, 2011.

A copy of the service agreement is included as Attachment A.

Thank you for the opportunity to present this cost proposal for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony C. Jeng".

Tony C. Jeng  
Executive Vice President

cc: File – MDEQ, James Ostrowski

## **ATTACHMENT A: SERVICE AND SUPPORT AGREEMENT**

### **(1) Overview**

The Michigan Department of Information Technology (MDIT) and Department of Environmental Quality (DEQ) retain enfoTech & Consulting, Inc. to develop and implement the MERP Information Management System for Air Quality Division users in order to support the Dry Cleaning program.

This Agreement is an annual technical support and maintenance program established between MDIT/DEQ and enfoTech for providing professional services to MDIT/DEQ for effective operation of the MERP system used at the DEQ.

### **(2) Agreement Period:**

This Agreement will cover services immediately after a contract issue date. Assuming that the annual maintenance begins on October 1, 2009, the annual maintenance runs from October 1, 2009 to September 30, 2010. The additional 10 months of free maintenance will begin on October 1, 2010 and end on July 31, 2011.

### **(3) Fees and Payment:**

The annual support and maintenance fee for this Agreement is \$12,840. The fee is due, in full at the onset of contract begin date.

It is recognized by DEQ and enfoTech that the System might continue to evolve and it is the intention of both parties to keep a similar time cycle for annual support and maintenance agreements in the future.

### **(4) Information Systems Covered Under This Agreement:**

Information System covered under this Service Agreement is listed below:

- MERP

### **(5) Maintenance Services Provided**

Services and support will be provided to the information systems listed in section 4 above. The services to be provided include the “**Core Maintenance Service Program**” (defined in Section 6).

### **(6) Core Maintenance Service Program**

The Core Maintenance Service Program will provide Department of Environmental Quality (DEQ) with routine maintenance technical support in connection with the MERP System. The specific core maintenance services are defined as follow:

#### **(6.a) User Support**

- “Senior-level” voice technical support, Monday through Friday, 9:00 AM to 6:00 PM EST, with a guaranteed callback response of less than four hours and unlimited incidents;
- Email support with a guaranteed eight-hour acknowledgement;
- Internet and FTP technical support for technical services, documentation, system upgrades, and new releases;
- Dial-up service via VPN/Terminal service on a high-speed Internet line for technical support on the Systems (if VPN/Terminal service is provided by Michigan).

**(6.b) System Release**

- Provide system releases to address maintenance issues
- For mission critical issue(s):
  - Mission critical issues: are (1) system errors that, if not resolved, will cause a total failure of the system, or significantly impair the DEQ's ability to continue using the system, or (2) system errors determined by Water Bureau management (with reasonable judgment) to be critical to DEQ needs
  - Mission critical items will be acknowledged by enfoTech within 2 hours of receipt. enfoTech will initiate the work immediately and keep MDIT/DEQ appraised of the progress.
  - Resolutions will be provided to MDIT/DEQ as soon as technically and feasibly possible by enfoTech.

**(7) Others**

1. MDIT/DEQ may renew said Agreement, for additional one-year periods, for a fee to be negotiated annually between MDIT/DEQ and enfoTech.
2. Additional on-site support is available, at the MDIT/DEQ's request, for an additional charge.
3. The maintenance and support services are contingent upon proper use of the MDIT/DEQ's hardware and the Licensed Programs and do not cover any portion of the Licensed Programs which have been modified without enfoTech's approval.
4. enfoTech shall not be responsible to MDIT/DEQ for loss of use of the Licensed Programs or for any other liabilities arising from alterations, modifications, efficiency improvements, adjustments, or other changes which have been made to the Licensed Programs or its operating environment by other than authorized representatives of enfoTech.
5. Major system upgrades are not covered under this Agreement. The cost for major system upgrades will be negotiated between MDIT/DEQ and enfoTech at the time the upgrade becomes available.
6. Any service performed by enfoTech outside the scope of this Agreement shall be provided at enfoTech's prevailing rates for time, materials, and terms.

STATE OF MICHIGAN  
 DEPARTMENT OF MANAGEMENT AND BUDGET  
 PURCHASING OPERATIONS  
 P.O. BOX 30026, LANSING, MI 48909  
 OR  
 530 W. ALLEGAN, LANSING, MI 48933

April 27, 2009

**CHANGE NOTICE NO.1  
 TO  
 CONTRACT NO. 071B6200209  
 between  
 THE STATE OF MICHIGAN  
 and**

NAME & ADDRESS OF VENDOR  <b>enfoTech &amp; Consulting, Inc.          11 Princess Road, Unit A          Lawrenceville, NJ 08648</b>  <b>tony_jeng@enfotech.com</b>	TELEPHONE Tony Jeng <b>609-896-9777, Ext 107</b>
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-3215 <b>Steve Motz</b>
Contract Compliance Inspector: Patty Bogard <b>Michigan Environmental Results Program (MERP) Dry Cleaning Sector Data Integration System</b>	
CONTRACT PERIOD: From: <b>October 1, 2006</b> To: <b>October 1, 2009</b>	
TERMS <b>Net 45 Days</b>	SHIPMENT <b>N/A</b>
F.O.B. <b>N/A</b>	SHIPPED FROM <b>N/A</b>
MINIMUM DELIVERY REQUIREMENTS <b>N/A</b>	

**NATURE OF CHANGE(S):**

Effective immediately, the Phase 1 pricing table (Attachment F) has been replaced with the attached revised Attachment F to reflect the removal of deliverable line items 1D.2 and 1D.3 from this contract and the pricing table. The State has also modified the second year of maintenance identified in 1E.1 of the price table to begin May 1, 2010 and end July 31, 2011 as described in Attachment A – Service and Support Agreement which is hereby incorporated into this contract. Please note the following correction made to Section 3 of Attachment A.

**(3) Fees and Payment:**

The annual support and maintenance fee for this Agreement is \$12,840. The fee is due, in full, at the onset of ~~contract~~ begin date.  
 maintenance

This change results in \$10,500 reduction in the total estimated contract value. All other terms and conditions remain the same.

**AUTHORITY/REASON(S):**

Per agency and vendor agreement.

**DECREASE: \$10,500.00**

**TOTAL REVISED ESTIMATED CONTRACT VALUE: \$395,840.00**

**Attachment F**  
Pricing

<b>PHASE I Deliverables</b>	<b>Cost</b>
<b>(1A) Project Management</b>	
(1) Develop Project Plan Document that will include the following: <ul style="list-style-type: none"> <li>▪ Project Overview</li> <li>▪ Project Tasks and Descriptions</li> <li>▪ Project Timeline</li> <li>▪ Project Organization: Roles and Responsibilities</li> <li>▪ Communication Procedures</li> </ul>	<b>\$ 7,040</b>
<b>Total Cost for Part 1A</b>	<b>\$ 7,040</b>
<b>(1B) Dry Cleaning Tracking Database &amp; System Development</b>	
(1) Functional Requirements gathering	\$ 5,900
(2) Development of System Design and System Design Documentation	\$ 6,000
(3) Modifications to existing Dry Cleaning Database including data dictionary for a functional Dry Cleaning System	\$ 6,480
(4) Development of data tracking system (interface & business tier) for MDEQ staff	\$ 24,360
(5) Testing of the System and enhancements to the Database	\$ 3,120
(6) Installation & Admin Training (1 day training covering configuration & administration)	\$ 3,860
(7) MDEQ Staff End User Training for Dry Cleaning Data Tracking System	\$ 4,150
(8) One-year MERP-Dry Cleaning System support & maintenance and transfer knowledge to DIT for ongoing support and maintenance	\$ No Charge
<b>Total Cost for Part 1B</b>	<b>\$ 53,870</b>
<b>(1C) Development of Customized Field Inspection Program &amp; Implementation</b>	
(1) Form Design & Design Documentation	\$ 4,320
(2) Development of one field inspection report	\$ 19,120
(3) Development of data synch functionality with Dry Cleaning System (bi-directional)	\$ 11,400
(4) Testing of Customized Field Inspection Program	\$ 2,760
(5) Delivery of final inspection forms after testing is completed	\$ N/C
<b>Total Cost for Part 1C</b>	<b>\$ 37,600</b>
<b>(1D) Development of Form Scanning &amp; Extraction</b>	
(1) Technical consultation on selection of OCR software	\$ 4,320
(2) Other Direct Costs	\$ See Below**
<b>Total Cost for Part 1D</b>	<b>\$ 4,320</b>
<b>FINAL PAYMENT</b>	
Final Payment will be made in accordance with Section 1.502 Final Acceptance	<b>\$ 6,000</b>
<b>(1E) Integration Support &amp; Maintenance</b>	
(1) 2 <sup>nd</sup> Year of Integration Support & Maintenance (5/1/2010 – 7/31/2011)	\$ 12,840
(2) 3 <sup>rd</sup> <i>Optional</i> Year of Integration Support & Maintenance (8/1/2011 – 7/31/2012)	\$ 11,025
(3) 4 <sup>th</sup> <i>Optional</i> Year of Integration Support & Maintenance (8/1/2012 – 7/31/2013)	\$ 11,576
(4) 5 <sup>th</sup> <i>Optional</i> Year of Integration Support & Maintenance (8/1/2013 – 7/31/2014)	\$ 12,155
<b>Total Cost for Part 1E</b>	<b>\$ 47,596</b>
<b>Grand Total For Phase I (Excluding Optional Years 3-5 Maintenance Costs)</b>	<b>\$ 121,670</b>
<b>Grand Total For Phase I (Including Optional Years 3-5 Maintenance Costs)</b>	<b>\$ 156,426</b>



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March 17, 2009

Jeff Beasley  
Project Manager  
Michigan Department of Information Technology  
525 W Allegan St  
Lansing, MI 48933-1502

**Subject: FY10/FY11 Annual System Maintenance Proposal - MERP System**

Dear Mr. Beasley:

enfoTech provides software development, installation, and support of environmental information systems for the DEQ under certain contracts. These contracts provide an option for the DEQ to retain enfoTech to provide system maintenance and support services after the systems go into production. This proposal provides an annual cost estimate for maintaining the MERP system.

As stated in the MERP contract, the first year of annual maintenance fee is free and the second year of annual maintenance fee is \$10,500. Assuming that the annual maintenance begins on May 1, 2009, the 2<sup>nd</sup> year's annual maintenance fee from May 1, 2010 to July 31, 2011 is \$12,840 (15 months). The total amount of FY10/FY11 annual maintenance fee (from May 1, 2010 to July 31, 2011) is \$12,840.

A copy of the service agreement is included as Attachment A.

Thank you for the opportunity to present this cost proposal for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony C. Jeng".

Tony C. Jeng  
Executive Vice President

cc: File – MDEQ, James Ostrowski

## **ATTACHMENT A: SERVICE AND SUPPORT AGREEMENT**

### **(1) Overview**

The Michigan Department of Information Technology (MDIT) and Department of Environmental Quality (DEQ) retain enfoTech & Consulting, Inc. to develop and implement the MERP Information Management System for Air Quality Division users in order to support the Dry Cleaning program.

This Agreement is an annual technical support and maintenance program established between MDIT/DEQ and enfoTech for providing professional services to MDIT/DEQ for effective operation of the MERP system used at the DEQ.

### **(2) Agreement Period:**

This Agreement will cover services immediately after a contract issue date. Assuming that the annual maintenance begins on May 1, 2010, the annual maintenance runs from May 1, 2010 to July 31, 2011 (15 months).

### **(3) Fees and Payment:**

The annual support and maintenance fee for this Agreement is \$12,840. The fee is due, in full, at the onset of contract begin date.

It is recognized by DEQ and enfoTech that the System might continue to evolve and it is the intention of both parties to keep a similar time cycle for annual support and maintenance agreements in the future.

### **(4) Information Systems Covered Under This Agreement:**

Information System covered under this Service Agreement is listed below:

- MERP

### **(5) Maintenance Services Provided**

Services and support will be provided to the information systems listed in section 4 above. The services to be provided include the “**Core Maintenance Service Program**” (defined in Section 6).

### **(6) Core Maintenance Service Program**

The Core Maintenance Service Program will provide Department of Environmental Quality (DEQ) with routine maintenance technical support in connection with the MERP System. The specific core maintenance services are defined as follow:

#### **(6.a) User Support**

- “Senior-level” voice technical support, Monday through Friday, 9:00 AM to 6:00 PM EST, with a guaranteed callback response of less than four hours and unlimited incidents;
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- Dial-up service via VPN/Terminal service on a high-speed Internet line for technical support on the Systems (if VPN/Terminal service is provided by Michigan).

**(6.b) System Release**

- Provide system releases to address maintenance issues
- For mission critical issue(s):
  - Mission critical issues: are (1) system errors that, if not resolved, will cause a total failure of the system, or significantly impair the DEQ's ability to continue using the system, or (2) system errors determined by Water Bureau management (with reasonable judgment) to be critical to DEQ needs
  - Mission critical items will be acknowledged by enfoTech within 2 hours of receipt. enfoTech will initiate the work immediately and keep MDIT/DEQ appraised of the progress.
  - Resolutions will be provided to MDIT/DEQ as soon as technically and feasibly possible by enfoTech.

**(7) Others**

1. MDIT/DEQ may renew said Agreement, for additional one-year periods, for a fee to be negotiated annually between MDIT/DEQ and enfoTech.
2. Additional on-site support is available, at the MDIT/DEQ's request, for an additional charge.
3. The maintenance and support services are contingent upon proper use of the MDIT/DEQ's hardware and the Licensed Programs and do not cover any portion of the Licensed Programs which have been modified without enfoTech's approval.
4. enfoTech shall not be responsible to MDIT/DEQ for loss of use of the Licensed Programs or for any other liabilities arising from alterations, modifications, efficiency improvements, adjustments, or other changes which have been made to the Licensed Programs or its operating environment by other than authorized representatives of enfoTech.
5. Major system upgrades are not covered under this Agreement. The cost for major system upgrades will be negotiated between MDIT/DEQ and enfoTech at the time the upgrade becomes available.
6. Any service performed by enfoTech outside the scope of this Agreement shall be provided at enfoTech's prevailing rates for time, materials, and terms.



STATE OF MICHIGAN  
 DEPARTMENT OF MANAGEMENT AND BUDGET  
 PURCHASING OPERATIONS  
 P.O. BOX 30026, LANSING, MI 48909  
 OR  
 530 W. ALLEGAN, LANSING, MI 48933

October 3, 2006

**NOTICE  
 OF  
 CONTRACT NO. 071B6200209  
 between  
 THE STATE OF MICHIGAN  
 and**

NAME & ADDRESS OF VENDOR  <b>enfoTech &amp; Consulting, Inc.</b> <b>11 Princess Road, Unit A</b> <b>Lawrenceville, NJ 08648</b>  <b>tony_jeng@enfotech.com</b>		TELEPHONE Tony Jeng <b>609-896-9777, Ext 107</b>
		VENDOR NUMBER/MAIL CODE
		BUYER/CA (517) 241-3215 <b>Steve Motz</b>
Contract Compliance Inspector: Patty Bogard <b>Michigan Environmental Results Program (MERP) Dry Cleaning Sector Data Integration System</b>		
CONTRACT PERIOD: From: <b>October 1, 2006</b> To: <b>October 1, 2009</b>		
TERMS  <b>Net 45 Days</b>	SHIPMENT  <b>N/A</b>	
F.O.B.  <b>N/A</b>	SHIPPED FROM  <b>N/A</b>	
MINIMUM DELIVERY REQUIREMENTS <b>N/A</b>		
MISCELLANEOUS INFORMATION:		

**Estimated Contract Value: \$406,340.00**

STATE OF MICHIGAN  
 DEPARTMENT OF MANAGEMENT AND BUDGET  
 PURCHASING OPERATIONS  
 P.O. BOX 30026, LANSING, MI 48909  
 OR  
 530 W. ALLEGAN, LANSING, MI 48933

**CONTRACT NO. 071B6200209**  
 between  
**THE STATE OF MICHIGAN**  
 and

NAME & ADDRESS OF VENDOR  <p style="text-align: center;"><b>enfoTech &amp; Consulting, Inc.</b>  <b>11 Princess Road, Unit A</b>  <b>Lawrenceville, NJ 08648</b></p> <p style="text-align: right;"><b>tony_jeng@enfotech.com</b></p>		TELEPHONE Tony Jeng <b>609-896-9777, Ext 107</b> VENDOR NUMBER/MAIL CODE  BUYER/CA (517) 241-3215 <b>Steve Motz</b>	
Contract Compliance Inspector: Patty Bogard <b>Michigan Environmental Results Program (MERP) Dry Cleaning Sector Data Integration System</b>			
CONTRACT PERIOD:		From: <b>October 1, 2006</b> To: <b>October 1, 2009</b>	
TERMS  <p style="text-align: center;"><b>Net 45 Days</b></p>		SHIPMENT  <p style="text-align: center;"><b>N/A</b></p>	
F.O.B.  <p style="text-align: center;"><b>N/A</b></p>		SHIPPED FROM  <p style="text-align: center;"><b>N/A</b></p>	
MINIMUM DELIVERY REQUIREMENTS <p style="text-align: center;"><b>N/A</b></p>			
MISCELLANEOUS INFORMATION: <b>The terms and conditions are of this contract. In the event of any conflicts between the specifications, terms and conditions indicated by the State and those indicated by the vendor, those of the State take precedence.</b>			
<b>Estimated Contract Value: \$406,340.00</b>			

**THIS IS NOT AN ORDER:** This Contract Agreement is awarded on the basis of our inquiry bearing the **ITB No. 071I6200071**. Orders for delivery of equipment will be issued directly by the **Department of Information Technology** through the issuance of a Purchase Order Form.

All terms and conditions of the invitation to bid are made a part hereof.

<b>FOR THE VENDOR:</b>  <p style="text-align: center;"><b>enfoTech &amp; Consulting, Inc.</b></p> <hr/> <p style="text-align: center;">Firm Name</p> <hr/> <p style="text-align: center;">Authorized Agent Signature</p> <hr/> <p style="text-align: center;">Authorized Agent (Print or Type)</p> <hr/> <p style="text-align: center;">Date</p>	<b>FOR THE STATE:</b>  <p style="text-align: center;">Signature</p> <p style="text-align: center;"><b>Greg Faremouth, Buyer Specialist</b></p> <hr/> <p style="text-align: center;"><i>Name</i></p> <p style="text-align: center;"><b>IT Division, Purchasing Operations</b></p> <hr/> <p style="text-align: center;">Title</p> <hr/> <p style="text-align: center;">Date</p>
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**STATE OF MICHIGAN**  
**Department of Management and Budget**  
**Purchasing Operations**

**Contract No. 071B6200209**

**Michigan Environmental Results Program**  
**For The**  
**Dry Cleaning Sector**

Buyer Name: Steve Motz  
Telephone Number: 517-241-3215  
E-Mail Address: [motzs@michigan.gov](mailto:motzs@michigan.gov)



# Michigan Environmental Results Program for Dry Cleaning Sector

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## Abbreviations and Assorted Definitions

Central Data Exchange (CDX)	Point of entry on the Environmental Information Exchange Network (Exchange Network) for environmental data submissions to the U.S. EPA. Additional info at: <a href="http://www.epa.gov/cdx">http://www.epa.gov/cdx</a>
CFR	The Code of Federal Regulations (CFR) is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government.
Core Reference Model	An inventory to organize and identify commonalities in the data that States and USEPA currently anticipate exchanging. Additional info at: <a href="http://www.exchangenetwork.net">http://www.exchangenetwork.net</a>
CROMERRR	Cross-Media Electronic Reporting and Record-keeping Rule. Legal framework for electronic reporting and record-keeping under most, if not all, of EPA's environmental regulations. Additional info at: <a href="http://www.epa.gov/cdx/cromerrr">http://www.epa.gov/cdx/cromerrr</a>
Data flow	Exchange Network term for any routine exchange of information between two or more network partners.
DIT	Michigan Department of Information Technology
Environmental Data Standards	Environmental data standards provide a common vocabulary for citizens, local governments, states, tribes, federal agencies and private sector organizations to communicate about environmental data. Additional info at: <a href="http://www.envdatastandards.net">http://www.envdatastandards.net</a>
EPA	U.S. Environmental Protection Agency. Additional info at: <a href="http://www.epa.gov">http://www.epa.gov</a>
ERP	Environmental Results Program – Additional info at: <a href="http://www.epa.gov/permits/erp/index.htm">http://www.epa.gov/permits/erp/index.htm</a>
ESSD	The Environmental Science and Services Division (ESSD) oversees outreach and assistance services leading to the improvement in environmental quality, providing non-regulatory services related to all environmental programs administered by the Michigan Department of Environmental Quality (MDEQ).
Exchange Network	aka National Environmental Information Exchange Network. Partnership between state environmental departments and the U.S. Environmental Protection Agency for the exchange of environmental information efficiently and securely over the Internet. Additional info at: <a href="http://www.exchangenetwork.net">http://www.exchangenetwork.net</a>
Flow Configuration Document	aka FCD. A document that is intended to define the supported data services and processes that are used to exchange information. The FCD serves as a guide for trading partners the details and challenges associated with a specific flow. Additional info at: <a href="http://www.exchangenetwork.net">http://www.exchangenetwork.net</a>



ID	Identification number
MBE/WBE	Minority Business Enterprises / Women Business Enterprises
MDEQ	Michigan Department of Environmental Quality
MERP	Michigan Environmental Results Program
MS	Microsoft
.NET	.NET is the Microsoft Web services strategy to connect information, people, systems, and devices through software.
Node	A Network Node is a web server that facilitates the interface between back-end database systems and the Network. It is an entity's "point of presence" on the Exchange Network. Using standards-based web services and eXtensible Markup Language (XML) schema, Nodes securely initiate and respond to requests for information. Additional info at: <a href="http://www.exchangenetwork.net">http://www.exchangenetwork.net</a>
OCR	Optical Character Recognition
OMB	Working cooperatively with the grant-making agencies and the grantee community, the Office of Management and Budget (OMB) leads development of government-wide policy to assure that grants are managed properly and that Federal dollars are spent in accordance with applicable laws and regulations.
PCR	Project Change Request
PHIN	Public Health Information Network
PIN	Personal Identification Number
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
PMM	Project Management Methodology
QA	Quality Assurance



QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
RFP	Request for Proposal
RTC	Return to Compliance
SBRA	Small Business in Rural Areas
Schema	Files that serve as the framework for defining the data elements and rules in an XML document. Schema express shared vocabularies and allow computers to carry out rules made by people.
SOW	Statement of Work
TRG	Technical Resources Group. Additional info at: <a href="http://www.exchangenetwork.net">http://www.exchangenetwork.net</a>
XML	aka eXtensible Markup Language. An open standard language used to create files for exchanging and displaying data. XML is an outgrowth of Standard Generalized Markup Language and provides a standard method for describing data based upon a syntax developed by the World Wide Web Consortium (W3C).



## Article 1 – Statement of Work (SOW)

### 1.0 Project Identification

#### 1.001 PROJECT SUMMARY

enfoTech (Contractor), working for the Michigan Department of Environmental Quality (MDEQ) and in coordination with the Michigan Department of Information Technology (DIT), will validate, design, build and implement a data management program application to capture, store, manage and analyze collected data related to compliance with identified environmental results. Contractor will convert information from an existing database application system (Appendix II) and design, build, and implement a new system for collecting and managing data.

**Please note** that this contract is composed of 2 phases, as outlined below:

**Phase I** of the Michigan Environmental Results Program for the Dry Cleaning Sector, as identified in the **Section 1.002 Background** and **1.1 Scope of Work and Deliverables**.

**Phase II** of the Michigan Environmental Results Program for the Dry Cleaning Sector, as identified in the **Section 1.002 Background** and **1.1 Scope of Work and Deliverables**. Phase II option will begin after successful completion of Phase I **if funding becomes available and The State of Michigan, in its sole discretion, chooses to proceed with Phase II.**

#### 1.002 BACKGROUND

The U. S. Environmental Protection Agency (EPA), National Center for Environmental Innovation, State Innovation Pilot Grant Program, awarded a State Innovation Grant to MDEQ in January 2005 to apply a multimedia Environmental Results Program (ERP) approach to the dry cleaning sector statewide. Michigan has approximately 900 perchloroethylene and 68 petroleum solvent dry cleaning facilities.

The Environmental Results Program is an innovative approach to solving environmental problems in industry sectors largely comprised of small businesses. The ERP concept combines technical assistance, self-certification, inspections, and statically-based performance measurement in order to reduce environmental impacts of business. The intent of this pilot project is to determine whether an approach modeled upon ERP can achieve regulatory compliance while improving regulatory cost-effectiveness. The project will be the first new application of ERP for the dry cleaning sector outside of Massachusetts (see <http://mass.gov/dep/service/envrespr.htm> for more information on their earlier program), and could result in expanding the ERP program to other states following formal exemption by EPA of dry cleaners from identified permitting requirements.

MDEQ is establishing a Michigan Environmental Results Program (MERP) that will provide, for certain qualifying facilities, an alternative to their existing compliance requirements. MDEQ has identified the dry cleaning sector, which covers approximately 900 facilities, as the candidate for the initial group to pilot this alternative.

MDEQ will use MERP to incorporate the air, water, and waste requirements for the dry cleaning sector into a multi-media industry-wide environmental performance standards, self-certification, and compliance assistance package to replace facility-specific state permits for individual dry cleaning businesses in each of the regulated areas.

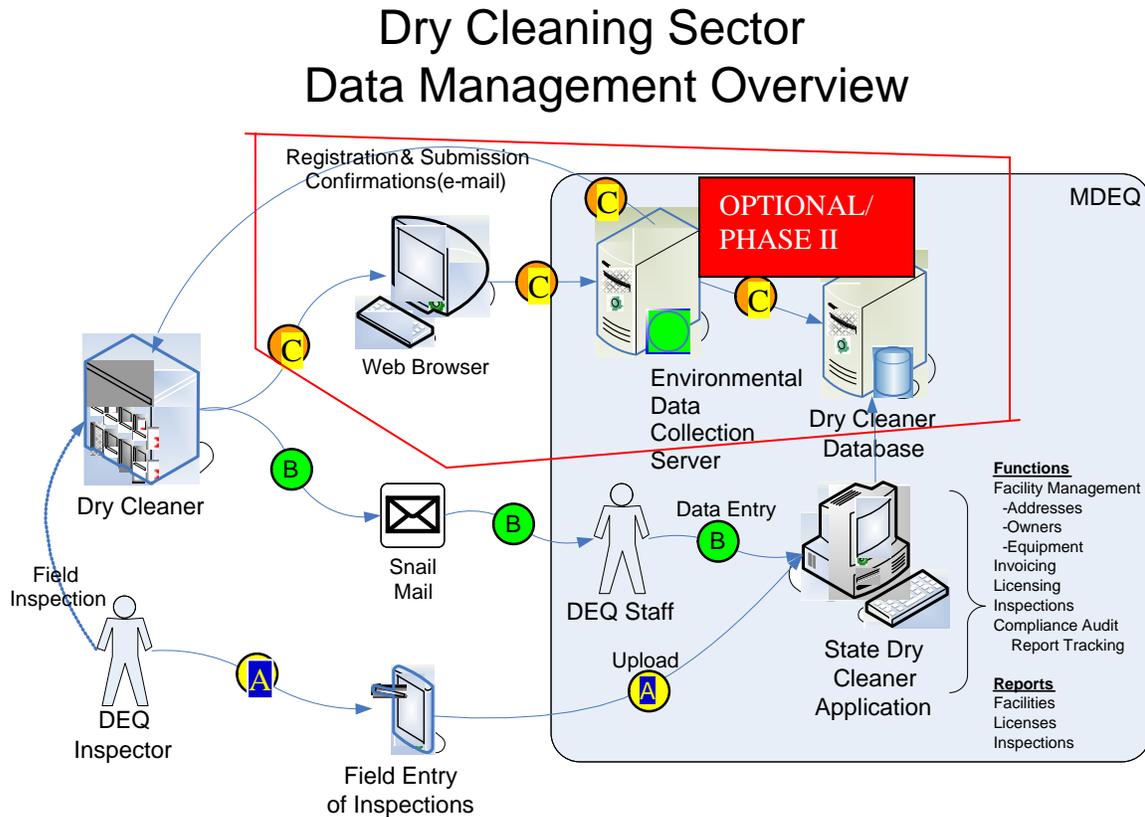
The objectives of the pilot include:

- Enable dry cleaning owners to better understand their environmental regulatory requirements;
- Reduce dry cleaning facility costs to comply with those regulations;
- Move the sector from low compliance to 100% compliance rate;
- Reduce MDEQ's cost to determine compliance;
- Document environmental results as an outcome of this pilot project; and
- Share the results and lessons learned with other states.

The process to develop the MERP for the dry cleaning sector envisions three mechanisms for collection of dry cleaning sector regulatory compliance information:

- A. State-Certification Via Field Inspection by MDEQ staff (Phase I);
- B. Self-Certification Via Parcel Post (Phase I); and
- C. Online Electronic Self-Certification (Phase II).

Using an online electronic certification mechanism (Phase II) is an option for future development after full implementation of state certification using field inspection by MDEQ staff and self-certification by mail (Phase I). The diagram below illustrates the anticipated data collection and management process:



The data collection mechanisms for this multimedia approach are further described as follows:

**A. State-Certification Via Standard Field Inspection Form (Phase I):**

- a. A Baseline Compliance Assessment using multi-media regulatory compliance criteria of the MERP-Dry Cleaning Sector is performed by MDEQ staff. This will occur at one of two possible times:
  - i. During a statewide MERP Initial Compliance Inspection Assessment
  - ii. For a new dry cleaning establishment, after the Initial Compliance Inspection Assessment period
- b. After the Initial multi-media Compliance Inspection Assessment round is completed, the following information will be distributed to the dry cleaning establishments.
  - i. MERP-Dry Cleaning Sector Self-Audit Checklist
  - ii. MERP-Dry Cleaning Sector Workbook (to explain to dry cleaners how to complete the self-audit)
  - iii. Document explaining the MERP-Dry Cleaning Sector pilot program
- c. A master Dry Cleaning Sector business inventory database currently exists, however it will need to be converted to the new developed system.



- d. For those facilities that have not self-certified, as well as a random statistically valid sample, MDEQ inspectors will perform traditional, multimedia (air, water, waste) compliance field inspections. The database will interface with the Customized Field Inspection Program to download a list of facilities that will require field inspections. This information will be downloaded onto portable hand-held devices. The type of handheld device has not yet been identified. In addition to facility information, some historical data will also be downloaded to the devices for the inspectors to reference during their inspections.
- e. The inspector will enter the inspection report into the device on a form that contains a checklist similar to the multi-media self-certification form.
- f. When the inspector returns to the office, the data in the handheld device will be uploaded to the Dry Cleaning System to transfer certification results to the Dry Cleaning Database.

**B. Self-Certification Via Parcel Post (Phase I):**

- a. MDEQ staff, as outlined in Step A-a above, performs a Baseline Compliance Assessment of the dry cleaning establishment. The dry cleaning owner will be provided with the Compliance Self-Audit Checklist and Workbook.
- b. The dry cleaning owner/operator completes the checklist and mails it to MDEQ via parcel post.
- c. MDEQ staff receives the paper submission and scans the report using Optical Character Recognition (OCR) software, which will interpret the data entered in the submitted report. Contractor will provide data entry capabilities to allow MDEQ staff to enter checklist results into the New State Dry Cleaner Application in cases where the submission is unreadable by the OCR software.
- d. The output from the OCR software will be converted into XML format and imported into the Dry Cleaning Database.

**C. Online Electronic Self-Certification through a Web and XML-based Information System (PHASE II):**

- a. The Dry Cleaning establishment obtains a user account by self-registering online in the web and XML-based data collection information system. An email is sent back to the dry cleaning owner/operator with their electronic Personal Identification Number (PIN) that allows them to submit their completed Electronic Compliance Self-Audit Checklist.
- b. The dry cleaning owner/operator completes the Environmental Compliance Self-Audit Checklist online in the web and XML-based information system. The dry cleaning owner/operator must then certify the results and supply their PIN to submit the report to MDEQ.
- c. A web and XML-based information system performs initial completion checks on the submittal and sends one of the following emails to the dry cleaning owner/operator.
  - i. If submission does not meet the minimum reporting requirements, submission will be rejected by the web and XML-based information
  - ii. If submission is accepted by the web and XML-based information system, a receipt confirmation is sent to the certifier.
- d. A web and XML-based information System sends valid submissions to the Dry Cleaning Database.
- e. Dry cleaning owner/operator will have the ability to view their past submittals online in the web and XML-based information System.
- f. A web and XML-based information will maintain complete chain-of-custody data for each submittal. The chain-of-custody will include:
  - i. User ID
  - ii. Sender computer TCP/IP addresses used for submission
  - iii. Date/time of submission
  - iv. Date/time of receipt
  - v. Confirmation ID issued for each submission
  - vi. Date/time the receipt confirmation email is sent to the sender
  - vii. Date/time the submission is processed to the Dry Cleaning Database
  - viii. Date/time of sender is notified for the processing status
  - ix. A Checksum value of the original submission file to guarantee that submission has not been altered in any manner



In order to effectively manage the massive amounts of data generated in MDEQ's current data management program application, Contractor must develop a Dry Cleaning System for collection of the compliance data and convert the existing data into the Dry Cleaning System. The complete project has two phases, with the second phase optional at the sole discretion of the State and if funding becomes available.

Data quality objectives for the performance measures will be developed by the State's Project Manager as part of Measures Identification and Statistical Methodology tasks to be included in the EPA required Quality Assurance Project Plan (QAPP). The State's Project Manager has the responsibility for the QAPP. EPA's *Generic Guide to Statistical Aspects of Developing an Environmental Results Program* (2003) will be relied upon for guidance on decisions related to optimizing data quality for this project. The project must comply with the requirements of the QAPP, as amended and approved by EPA. A copy of the current version of the QAPP is attached as [Appendix IV](#). Dates incorporated with the QAPP will be adjusted as needed to reflect approved project timelines by MDEQ.

## 1.1 Scope of Work and Deliverables

### 1.101 IN SCOPE

Contractor will provide services to facilitate identification of requirements, code and provide technical implementation to convert the existing database and design and build the new Dry Cleaning System.

The following section outlines the **Phase I** and **Phase II** Scope of Services to be performed for this project. The scope includes Project Requirements and associated Tasks separately described under each of the two Phases.

#### 1.11 Scope of Services – Work and Deliverables

Contractor shall provide services and staff, and otherwise do all things necessary for or incidental to the performance of work, as set forth below:

##### **PHASE I - Project Requirements:**

The business processes outlined above in data collection mechanisms "A" and "B" (see Section 1.002), will require the following:

- A. Dry Cleaning Database:** The existing SQL Server database (See [Appendix II](#) for existing SQL Data and Form Screens) does not store compliance audit reports. There are currently six (6) users of the system, but the number may increase in the future. Contractor will design the new database to include tables and fields as needed to track the detail in the documents attached as [Appendix II](#).
- B. Dry Cleaning System: Dry Cleaning System Functions:** The Current Dry Cleaning System was developed using a MS Access front-end. The contractor must write the front-end interface of the New State Dry Cleaner Application using Microsoft .NET. In addition, the design of the New State Dry Cleaner Application must meet or be compatible with MDEQ's application Hosting Environment and section 2.104-IT Standards. Program staff estimates that the system will have about 15 data tracking screens and one invoicing module (see [Appendix II](#) for examples of data screens).

The New Dry Cleaning System will have the following major functional areas:

1. Facility Management, including:
  - a. Facilities
  - b. Locations
  - c. Mailing Address
  - d. Owner Information
  - e. Equipment Records
2. Invoicing and Payments
  - a. Automatic invoice preparation based on solvent used and size
  - b. Invoice & Payment tracking
3. Annual license generation & tracking
4. Inspections



5. Compliance Audit Report (Self-Certification) Tracking entry form

- C. Field Entry Forms:** A field entry form, attached as [Appendix II](#), will be developed in accordance with MDEQ's application Hosting Environment and Section 2.104-IT Standards and will provide inspectors the ability fill out inspection reports while in the field. This will be designed and developed for use on a Tablet PC or other portable electronic device that uses Microsoft software. MDEQ currently uses tablet hand held devices. However, MDEQ with assistance with DIT will be purchasing new tablet PCs under a separate contract. The supplier of the tablet will be responsible for training. In addition, Contractor's New State Dry Cleaner Application must contain a bi-directional data exchange module that will allow inspection reports to be synched-up with the New Dry Cleaning System when the inspector returns to the office.
- D. Scanning, Optical Character Recognition (OCR), Conversion and Importing of Paper Submissions:** OCR software will be used to scan in and interpret any paper submissions (forms will have a yes/no format with a few text entry fields) that have been received for entry into the New Dry Cleaning System. The State will select OCR software after DIT approval based on its ability to output its format in XML or another open-protocol format. The Contractor's New State Dry Cleaner Application must be designed with the ability to convert the output from the OCR software to a format compatible with the Dry Cleaning Database. This will allow the data to then be imported directly into the database.

## PHASE I Project Tasks:

### **(1A) Project Management**

After the contract is executed by the State of Michigan, Contractor's project manager will act as the project coordinator to facilitate the project from start-to finish. During the project start-up period, the project manager will perform the following activities:

1. Establish a formal project tracking mechanism in the Project Server (**i.e., an web-based MS SharePoint Server**) as a Project Team Website to:
  - a. Itemize deliverables, milestones, and schedules
  - b. Establish "tasks" required for each deliverable
  - c. Assign resources to each task defined for all deliverables
  - d. If required, establish a time tracking procedure in the Project Server to alert all project personnel to log-in work activities on a daily basis so that the project management team can easily monitor the project progress.
2. Hold a project kickoff meeting with the MDEQ project members to conduct a general project orientation. During the project kickoff meeting, the project manager will work with the team to develop the information needed for a Project Plan document. The Project Plan document may include the following discussions:
  - a. Project background and scope of work
  - b. Deliverables and timeline
  - c. Deliverable review and acceptance criteria
  - d. Procedures to develop and finalize a detailed project requirement document
  - e. A system development plan
  - f. A quality assurance plan
  - g. A project implementation plan
  - h. Issue tracking and resolution plan
  - i. A risk management plan
  - j. Deliverable acceptance plan
  - k. General project management practices, communication procedures, and reporting frequency and methods
3. Establish user accounts for the MDEQ project members to allow the project members to access the common Project Server web site to share information and to monitor project progress. Contractor will provide comprehensive project management service for the Dry Cleaning project to ensure that MDEQ/DIT will receive a good quality product, on schedule, and within budget. Contractor's project management will include the following components:
  - a. Project Management Principles
  - b. Project Management Process
  - c. Time & Resource Management
  - d. Cost Management
  - e. Quality (Issues) Management



- f. Risk Management
  - g. Version Control
  - h. Change Management
  - i. Project Management Tools
4. In order to keep the MDEQ/DIT project manager abreast of project progress, Contractor will conduct bi-weekly WebEx conference calls and prepare monthly project reports. Brief project status updates will also be provided weekly to keep the project team informed. See [Attachment C](#) for the Sample Project Plan.

### 1A Deliverables:

1. **A project plan document to include the following:**
  - Project Overview
  - Project Tasks and Descriptions
  - Project Timeline
  - Project Organization: Roles and Responsibilities
  - Communication Procedures

### **Completion Criteria**

This task shall be considered complete when the Project Plan has been delivered and approved by the DIT Project Manager in accordance with the Acceptance Criteria of section 1.501.

### **(1B) MDEQ Dry Cleaning Tracking Database and System Development**

The Database and System Development will consider the existing business requirements, DIT infrastructure support, and data exchange needs to achieve a total system architecture that will support the MERP Dry Cleaning enterprise-wide data management needs. Contractor will perform the following tasks during this stage of the project:

1. **Design Meeting:** Conduct site visit to MDEQ to obtain System Functional Requirements and discuss design enhancements. Contractor will perform a walk-through of the current business process and the database ER design with the MDEQ/DIT program staff to develop the functional requirement specifications to support business requirements. During the review, Contractor will pay special attention to:
  - a. The overall screen flow of the Dry Cleaning system
  - b. The “system flexibility” needed to accommodate future regulation changes,
  - c. The requirements for storing and managing compliance audit reports
  - d. Integration with existing Michigan applications for data exchange

If there are any regulatory changes or ideas for additional system flexibility, Contractor will revise the Functional Requirements Specifications (FRS) to incorporate the requirements.

During the FRS confirmation period, Contractor will work with the MDEQ subject matter experts (SMEs) to identify potential business process improvement opportunities.

The BPI analysis will guide the project team for the overall system design. Contractor will perform a BPI analysis and incorporate the results into the Function Requirements Specification. The design work shall include BPI flexibility. Implementation of the requirements identified as a result of the BPI work will be determined by the MDEQ/DIT based on the BPI priority and project funding.

Contractor will review to compare the existing Dry Cleaning data elements to the Environmental Data Standards and Core Reference Model (CRM). The Environmental Data Standards and CRM will offer solid database Dry design guidelines to help improve data consistency and interoperability of the Dry Cleaning system with other environmental databases. Contractor will utilize environmental data standards and CRM XML schema development. While working with MDEQ on the Functional Requirement Specifications, Contractor will offer environmental domain knowledge on the NESHAP, NSPS, Title V, NPDES, and RCRA programs to facilitate the discussion for an integrated IT database to support the MERP program objectives. Opportunities identified for potential business process improvement will also be screened with a Return on Investment (ROI) model to ensure that the proposed IT solution and the revised business process worthy of the investment. The final MERP



database system must provide adequate functionality (data content, data quality, and system functions) to support the overall MERP program objectives.

2. **Development of System Design and System Design Documentation:** Based on the functional requirements Contractor will develop a comprehensive System Design Document (SDD) for the Dry Cleaning project. The system design document shall include detailed discussion of all system modules and IT technical architecture to support the Dry Cleaning system. At a minimum, it shall include the following technical subjects:
  1. High Level Design Concept
    - a. System Components vs. Available Technology
      - i. Presentation Tier
      - ii. Business Tier
      - iii. Data Tier
    - b. Concept of Workflow Collaboration Processes
  2. Dry Cleaning Core Components Structure
    - a. Application Server
    - b. Core Reference Model for the Dry Cleaning project
    - c. Dry Cleaning database design
    - d. Data Exchange Design
    - e. Data Exchange Mechanism
  3. Application Design
    - a. Application Structure
    - b. Data Transport/Data Validation
    - c. Integration with Other Systems
    - d. Open Data Source Design
    - e. Data Communication Design
  4. System Security and Privacy
    - a. Secure Intranet/Internet Communication
    - b. Authentication
    - c. Authorization
  5. Hardware (Servers) Infrastructure Requirements
    - a. Basic infrastructure requirement
    - b. Scale-up and scale-out design
    - c. Performance considerations
    - d. Storage capacity planning
  6. Software Development Plan for System Modules
  7. Data Flow Diagrams
  8. Data validation and business logic procedures for data quality assurance
  9. Entity Relationship Diagrams
  10. Data Dictionary (with field definition and edit/validation rules)
  11. Deployment method, scripting, and QA procedures
  12. Procedures for Source Code Documentation
  13. Test script development guidelines
  14. External System Integration methods
3. **Modifications to Existing Dry Cleaning Database including data dictionary for a functional Dry Cleaning System:** Modifications will be based on requirement resulting from the Functional Requirements Specification Document. Contractor will develop a data mapping document and data migration scripts to convert the existing Dry Cleaning database to the new Dry Cleaning database (see [Appendix II](#)): In addition, a data dictionary for the new Dry Cleaning database will be provided.
4. **Development of data tracking system (interface & business tier) for MDEQ staff:** Contractor will develop the Dry Cleaning system in accordance with the DIT/MDEQ approved" System Design Document. For the Phase I deliverables, the Dry Cleaning system will include the following modules:
  1. Facility Management, including
    - a. Facilities
    - b. Locations



- c. Mailing Address
- d. Owner Information
- e. Equipment Records
- 2. Invoicing and Payments
  - a. Automatic invoice preparation based on solvent used and size
  - b. Invoice & Payment tracking
- 3. Annual license generation & tracking
- 4. Inspections
- 5. Compliance Audit Report (Self-Certification) Tracking entry form
- 5. **System testing, including test scripts and QA installation package, for the database and data tracking system:** Contractor will develop test scripts for the Dry Cleaning system based on the System Design Document, to verify the system meets the functional requirements. Contractor will provide MDEQ/DIT with a QA installation package so MDEQ/DIT may execute the test scripts in the QA environment to ensure all requirements were met and the software is bug-free.
- 6. **System Installation & Administrator Training:** Contractor will provide a 1-day Installation & Administrator training session, including training materials, for up to 5 MDEQ/DIT staff at an onsite location selected by the State of Michigan.
- 7. **MDEQ Staff End User Training:** The Contractor will provide a 2-day Staff End User training session, including training materials, for up to 10 MDEQ staff, inspectors, and DIT staff at an onsite location selected by the State of Michigan.

### 1B Deliverables:

- 1B.1 A 2-day onsite meeting with MDEQ/DIT to gather functional requirements and identify business process improvements. A Functional Requirements Specification (FRS) document will be developed to document the final MDEQ/DIT requirements for the Dry Cleaning database and system.

#### **Completion Criteria**

This deliverable shall be complete when the **Functional Requirements Specification (FRS) document** has been accepted and signed-off by the DIT Project Manager.

- 1B.2 Development of System Design and System Design Documentation

#### **Completion Criteria**

This deliverable shall be complete when the **System Design Document** has been accepted signed-off by the DIT Project Manager.

- 1B.3 Modifications to the existing Dry Cleaning database including a data dictionary for a functional Dry Cleaning System

#### **Completion Criteria**

This deliverable shall be complete after the DIT Project Manager accepts and signs off on the modifications to the SQL database and Data Dictionary.

- 1B.4 Development of data tracking system (interface & business tier) for MDEQ staff

#### **Completion Criteria**

This deliverable shall include two versions, the Beta and Final versions, in two phases of delivery. The 50% of deliverable shall be complete following successful installation of the "Beta version" of the Dry Cleaning data tracking system at the QA environment for testing and following sign off by the DIT Project Manager. The remaining 50% of deliverable shall be complete following successful installation of the "Final version" of the Dry Cleaning data tracking system at the QA environment for testing and following sign off by the DIT Project Manager.

- 1B.5 System testing, including test scripts and QA installation package, for the database and data tracking system

#### **Completion Criteria**



- This deliverable shall be complete when the DIT Project Manager signs off that the system meets the functional and performance criteria of the specifications specified in the test scripts (i.e. deliverable 1B.5) during the test.
- 1B.6 A 1-day onsite Installation & Administrator training session, including training materials, for up to 5 MDEQ/DIT staff
- Completion Criteria**
- This task shall be complete when the State of Michigan receives the training materials and onsite Installation & Administrator Training, and upon acceptance by the DIT Project Manager.
- 1B.7 A 2-day onsite Staff End User training session, including training materials, for up to 10 MDEQ/DIT staff
- Completion Criteria**
- This task shall be complete when MDEQ/DIT receives the training materials and onsite Staff End User training. Acceptance will occur when The DIT Project Manager signs off on the training session and the training materials were received.
- 1B.8 A 1-year MERP-Dry Cleaning System support & maintenance, including knowledge transfer to DIT for ongoing support & maintenance

### **(1C) Dry Cleaning Field Inspection Form Development & Implementation**

During the Field Inspection Form Development & Implementation stage, the project team will identify and review the business requirements, DIT infrastructure support, and data exchange needs to implement the field inspection tool. Contractor will develop a system design, and then based on this design, system development will occur. During this process, Contractor will also guide MDEQ/DIT through the technology selection process for mobile computing hardware.

Contractor will develop a Customized Field Inspection Program to use as the basis for the Field Inspection Form Development & Implementation. The Customized Field Inspection Program will be developed and configured to support the Dry Cleaning specific data elements and business requirements.

The Customized Field Inspection Program will support fieldwork such as:

- Field data capture
- Electronic signature
- Field printing
- Compliance data capture (Provided in Optional Phase II)
- Image Capture (Provided in Optional Phase II)
- Viewing of facility history

The Customized Field Inspection Program will interface with MDEQ MERP database. Contractor will work with MDEQ/DIT during design discussions to modify and enhance the system to meet the specific needs for this project. Contractor will perform the following tasks during this stage of the project:

1. **Form Design & Design Document:** Based on identified functional requirements, and meetings with MDEQ/DIT staff, Contractor will create a comprehensive System Design Document (SDD) for the Dry Cleaning Field Inspection Form. The system design document shall include detailed discussion of the development needed for the Customized Field Inspection Program and data exchange module to allow inspection reports to be synched-up with the New Dry Cleaning System. At a minimum, it shall include the following technical subjects:
  1. High Level Design Concept
    - a. System Components
      - i. Presentation Tier
      - ii. Business Tier
      - iii. Data Tier
    - b. Concept of Workflow Collaborating Processes
  2. Dry Cleaning Field Assistant Structure



- a. Data Exchange Design
- b. Data Exchange Mechanism
- 3. Form Design
  - a. Form Structure
  - b. Form flow
  - c. Data Validation
  - d. Integration with Other Systems
- 4. System Security and Privacy
  - a. Secure Intranet/Internet Communication
  - b. Authentication
  - c. Authorization
  - d. Non-repudiation
- 5. Hardware (Field Device) Requirements
  - a. Basic infrastructure requirement
  - b. Scale-up and scale-out design
  - c. Performance considerations
  - d. Storage capacity planning
- 6. Data Flow Diagrams
- 7. Data validation and business logic procedures for data quality assurance
- 8. Entity Relationship Diagrams
- 9. Data Dictionary (with field definition and edit/validation rules)
- 10. Deployment method, scripting, and QA procedures
- 11. Procedures for Source Code Documentation
- 13. Test script development guidelines
- 14. External System Integration methods
- 2. **Form Development for Field Inspection Form used on handheld devices (See Appendix II)**  
Contractor will develop a Customized Field Inspection Program in accordance with the DIT/MDEQ approved System Design Document.
- 3. **Development of Data Synchronization Module with Dry Cleaning System:** This data exchange will be bi-directional, retrieving historical facility-level data from the Dry Cleaning System, as well as updating the system with inspection results from the handheld devices once the inspector returns from the field. Contractor will develop the Field Inspection Form for data synchronization in accordance with the DIT/MDEQ approved System Design Document.
- 4. **Testing of Field Inspection Forms:** Contractor will develop test scripts for the Field Inspection Forms based on the System Design Document, to verify the system meets the functional requirements. Contractor will provide MDEQ/DIT with a QA installation package so MDEQ/DIT may execute the test scripts on their field devices to ensure all requirements were met and the software is bug-free.
- 5. **Delivery of final Inspection Forms, after testing is completed:** Contractor will make any necessary modifications to the Inspection Forms and then provide MDEQ/DIT with a final installation package.

	MERP Field Inspection Form
<b>Summary</b>	<ul style="list-style-type: none"> <li>▪ MERP inspection form is developed from the scratch specifically for MERP field inspection</li> <li>▪ Synchronization between Pentablet and the MERP database will be accomplished using store procedures or web service.</li> </ul>
<b>Funding</b>	<ul style="list-style-type: none"> <li>▪ DEQ will pay for the customized version of MERP field inspection program per the pricing table.</li> </ul>
<b>Usage in DEQ</b>	<ul style="list-style-type: none"> <li>▪ Unlimited use of MERP field inspection program.</li> <li>▪ DEQ will obtain the MERP field inspection program source codes.</li> </ul>
<b>Distribution to other states</b>	<ul style="list-style-type: none"> <li>▪ DEQ is free to distribute the MERP field inspection program to all other states.</li> </ul>



### 1C Deliverables:

- 1C.0 Customized Field Inspection Program.

**Completion Criteria**

Customized Field Inspection Program is delivered to State of Michigan. DIT Project Manager accepts and signs off on the deliverable.

- 1C.1 Form Design & Design Documentation

**Completion Criteria**

This task shall be complete when the System Design Document (SDD) for the Dry Cleaning Field Inspection Form has been signed-off by the DIT Project Manager.

- 1C.2 Development of one field inspection report (the Michigan specific enhancements used for production will be supported under the annual support program between DEQ and enfoTech.)

**Completion Criteria**

This task shall be complete when the DIT Project Manager signs off on the field inspection report.

- 1C.3 Development of data synch functionality with Dry Cleaning System (bi-directional)

**Completion Criteria**

This task shall be complete when the DIT Project Manager signs off that the data synch functionality meets the system design requirements.

- 1C.4 Testing of Field Inspection Forms

**Completion Criteria**

This task shall be complete when the DIT Project Manager accepts and signs off that the system met the functional and performance criteria of the specifications during the test.

- 1C.5 Delivery of final Inspection Forms, after testing is completed

**Completion Criteria**

This task shall be complete when the contractor delivers the Inspection Forms to the DIT Project Manager and they are accepted and signed off on.

**(1D) Paper Form Scanning, Extraction, and Import** The Paper Form Scanning, Extraction, and Import stage will consider the existing business requirements, DIT infrastructure support, and data exchange needs to implement the paper form scanning, extraction, and import. Contractor will perform the following tasks during this stage of the project:

1. **Technical Consultation of Selection of OCR Software:** Contractor will work with DIT/MDEQ to evaluate OCR Software for use in the Dry Cleaning project and will provide State of Michigan Project Manager with recommendations. The following factors will be considered when evaluating OCR Software:
  - Form scan-in and interpretation processing capability (check box, text field, etc.)
  - The ability to output scanning results in XML or other open-protocol format, which will be easy to import into database (input/output filters).
  - High accuracy (low error rate)
  - User friendly and interface automation (scanning devices control, image enhancement, document processing capabilities, etc.)
  - Form layouts handling: fixed or semi-structure forms



- Input format handling: machine print (OCR), hand-printed letters and numbers (ICR), or check marks and radio group marks (OMR)
  - Degree of automation: use separate OCR software from the application software (less automation and integration, but lower cost) or build OCR form processing function into the application software using OCR form capture SDK (more automation, integration, but higher cost).
  - Cost and cost structure (one time fee or license fee)
2. **Scanned Form Export Mapping:** Contractor will design a system to allow the export of data from the OCR software. The exported data will be mapped to a format compatible with the Dry Cleaning Database.
  3. **Development of Data Conversion from OCR Format to Dry Cleaning Database and Documentation:** Contractor will develop the data procedure and documentation of that procedure that will convert data from the OCR export format and import this data into the Dry Cleaning database. Contractor will assist MDEQ to potentially re-design the data collection form to ensure that the OCR data conversion is highly reliable and will not require human effort to approve the data after scanning and conversion, in order to save time and improve the overall business process.

#### 1D Deliverables:

- 1D.1 Technical consultation on selection of OCR software

##### **Completion Criteria**

This task shall be complete when the OCR Software Recommendation Document is signed-off by the DIT Project Manager.

- 1D.2 Scanned Form export mapping to database (XML)

##### **Completion Criteria**

This task shall be complete when the data mapping document between the OCR Software and the MERP database is complete and signed-off by the DIT Project Manager.

- 1D.3 Data conversion from OCR export output to database format

##### **Completion Criteria**

This task shall be complete when the DIT Project Manager signs off that the OCR form scanning module met the functional and performance criteria of the specifications during the test, and that the OCR exporting process has been formally, tested and approved.

**(1E) One-year MERP-Dry Cleaner Integration Support & Maintenance:** Contractor will perform the following tasks during Support and Maintenance.

1. One-year MERP-Dry Cleaning System support & maintenance and knowledge transfer to DIT for ongoing support and maintenance.  
Support to include:
  - a. Contractor will provide technical telephone support service which includes a support number staffed by trained software specialists familiar with the software products provided under this contract.
  - b. The technical support service must be available between the hours of 7 o'clock AM and 6 o'clock PM EST/DST, Monday through Friday, except for established State holidays.
2. Optional one-year extensions of the MERP Dry Cleaning System support & maintenance. Support to include items addressed above.

#### 1E Deliverables:

- 1E.1 MERP-Dry Cleaner Integration Support & Maintenance
- 1E.2 Optional One-Year extensions to the MERP-Dry Cleaner Integration Support & Maintenance

### **PHASE II (Optional Phase) Project Requirements:**



After the successful completion of the **Phase I** objectives, with identification of funding and at the sole discretion of MDEQ, the Dry Cleaning program can build on the initial Electronic Dry Cleaning System, as well as add online submission capabilities via the XML-based Environmental Data Collection System, and Field Inspection enhancements with the implementation of a comprehensive compliance and enforcement tracking system. This compliance & enforcement system will include the following:

1. **Violation Tracking:** Entry and management of all non-compliance violations, including a document merge module for the automatic generation and issuance of violation letters as a result of, for example, failure respond to or report a release of materials. All violations are determined by the staff and captured in the database.
2. **Enforcement Tracking:** Entry and management of all enforcement actions taken against Dry Cleaners. This module will include a document merge module for the automatic generation and tracking of all enforcement action documents.
3. **Payment Tracking:** The existing payment tracking capabilities (included in **Phase I**) will be integrated with the enforcement tracking module to track fines and penalties assessed.
4. **Compliance & Enforcement Enhancements to the XML-Based Environmental Data Collection System:** With the addition of a compliance & enforcement tracking module in the Dry Cleaning System, the enforcement actions taken against dry cleaners can be incorporated into the XML-based Environmental Data Collection System. This will allow dry cleaners to log into the XML-based Environmental Data Collection System to view a past history of any violation or enforcement actions taken against them.
5. **Compliance & Enforcement Information Download for Field Inspectors:** The Field Inspection capabilities developed in **Phase I** can be built on to include compliance and enforcement information. This will allow the following:
  - a. During field activities, inspectors can view a history of all compliance and enforcement activities taken against a dry cleaner, which will provide inspectors with more information without needing to take additional paperwork into the field.
  - b. If the inspector detects any non-compliance while in the field, they will be able to issue and print a Letter of Warning to the dry cleaner while in the field.
  - c. All the data of the enforcement action performed in the field will be automatically uploaded during synchronization to the main Dry Cleaning Database.

## PHASE II Project Tasks:

**(2A) Project Management:** If the option for Phase II is exercised under this contract and the project manager of DIT/MDEQ, has authorized phase II, Contractor's project manager will act as the project coordinator to facilitate the project from start-to-finish. During the project start-up period, the project manager will perform the following activities:

1. Establish a formal project tracking mechanism in the Project Server as a Project Team Website to:
  - a. Itemize deliverables, milestones, and schedules
  - b. Establish "tasks" required for each deliverable
  - c. Assign resources to each task defined for all deliverables
  - d. If required by the State of Michigan, establish a time tracking procedure in the Project Server to alert all project personnel to log-in work activities on a daily basis so that the project management team can easily monitor the project progress.
2. Hold a project kickoff meeting with the MDEQ project members to conduct a general project orientation. During the project kickoff meeting, the project manager will work with the team to develop the information needed for the Project Plan document. The Project Plan document shall include the following discussions:
  - a. Project background and scope of work
  - b. Deliverables and timeline
  - c. Deliverable review and acceptance criteria
  - d. Procedures to develop and finalize a detailed project requirement document
  - e. A system development plan
  - f. A quality assurance plan



- g. A project implementation plan
  - h. Issue tracking and resolution plan
  - i. A risk management plan
  - j. Deliverable acceptance plan
  - k. General project management practices, communication procedures, and reporting frequency and methods
3. Establish user accounts for the MDEQ project members to allow the project members to access the common Project Server web site to share information and to monitor project progress.
  4. Contractor will provide comprehensive project management service for the Dry Cleaning project to ensure that MDEQ/DIT will receive a good quality product, on schedule, and within budget. Project management will include the following components:
    - a. Project Management Principles
    - b. Project Management Process
    - c. Time & Resource Management
    - d. Cost Management
    - e. Quality (Issues) Management
    - f. Risk Management
    - g. Version Control
    - h. Change Management
    - i. Project Management Tools
  5. In order to keep the MDEQ/DIT project manager abreast of project progress, Contractor will conduct bi-weekly WebEx conference calls and prepare monthly project reports. Brief project status updates will also be provided weekly to keep the project team informed.

## 2A Deliverables:

- 2A.1 A project plan document to include the following at a minimum:
  - a. Project Overview
  - b. Project Tasks and Descriptions
  - c. Project Timeline
  - d. Project Organization: Roles and Responsibilities
  - e. Communication Procedures

### Completion Criteria

This task shall be considered complete when the Project Plan Document has been delivered and approved by the DIT Project Manager in accordance with the Acceptance Criteria of section 1.501.

**(2B) Dry Cleaning System - Compliance & Enforcement Module:** The Compliance & Enforcement Module Development will consider the existing business requirements, DIT infrastructure support, and data exchange needs to enhance the New MERP Dry Cleaning system to support the Compliance & Enforcement Module.

Contractor will perform the following tasks during this stage of the project:

1. **Functional Requirements gathering:** Contractor will conduct a 2-day site visit to meet with DIT/MDEQ staff to gather Functional Requirements for the Compliance & Enforcement Module development. The Compliance & Enforcement Module will consist of the following sub-modules:
  - **Violation Tracking:** Allows MDEQ staff to enter and manage all non-compliance violations, including a document merge module for the automatic generation and issuance of violation letters.



- **Enforcement Tracking:** Allows MDEQ staff to enter and manage all enforcement actions taken against Dry Cleaners. This module includes a document merge module for the automatic generation and tracking of all enforcement action documents.
- **Payment Tracking:** Allows MDEQ staff to track fines and penalties assessed for enforcement actions. The payment tracking developed in Phase I will be integrated with the enforcement tracking module.

Based on the information gathered during the site visit, Contractor will prepare a Functional Requirements Specification (FRS) document for the Dry Cleaning System – Compliance & Enforcement Module.

2. **Development of System Design and System Design Documentation:** Contractor will develop a comprehensive System Design Document (SDD) for the Dry Cleaning System – Compliance & Enforcement Module. The system design document shall include detailed discussion of all IT technical architecture to support the Dry Cleaning system. At a minimum, it shall include the following technical subjects:

1. High Level Design Concept
  - a. System Components vs. Available Technology
    - i. Presentation Tier
    - ii. Business Tier
    - iii. Data Tier
  - b. Concept of Workflow Collaborating Processes
2. Dry Cleaning Core Components Structure
  - a. Application Server
  - b. Core Reference Model for the Dry Cleaning project
  - c. Dry Cleaning database design
  - d. Data Exchange Design
  - e. Data Exchange Mechanism
3. Application Design
  - a. Application Structure
  - b. Data Transport/Data Validation
  - c. Integration with Other Systems
  - d. Open Data Source Design
  - e. Data Communication Design
4. System Security and Privacy
  - e. Secure Intranet/Internet Communication
  - f. Authentication
  - g. Authorization
  - h. Non-repudiation
5. Hardware (Servers) Infrastructure Requirements
  - e. Basic infrastructure requirement
  - f. Scale-up and scale-out design
  - g. Performance considerations
  - h. Storage capacity planning
6. Software Development Plan for System Modules
7. Data Flow Diagrams
8. Data validation and business logic procedures for data quality assurance
9. Entity Relationship Diagrams
10. Data Dictionary (with field definition and edit/validation rules)
11. Deployment method, scripting, and QA procedures
12. Procedures for Source Code Documentation
13. Test script development guidelines



14. External System Integration methods
3. **Modifications to existing Dry Cleaning Database including data dictionary:** Contractor will develop a data mapping document and data migration scripts (if required by the State of Michigan) to convert the existing Dry Cleaning database to the updated Dry Cleaning database. In addition, an updated data dictionary will be provided for the updated Dry Cleaning database.
  4. **Development of functional compliance & enforcement module (interface & business tier) as an addition to Dry Cleaning System:** Contractor will develop the Dry Cleaning System – Compliance & Enforcement Module in accordance with the DIT/MDEQ “approved” System Design document. The Compliance & Enforcement Module will include the following sub-modules:
    - a. Violation Tracking
    - b. Enforcement Tracking
    - c. Payment Tracking
  5. **Testing of modifications to System and Database:** Contractor will develop test scripts for the Compliance & Enforcement Module based on the System Design Document, to verify the system meets the functional requirements. Contractor will provide MDEQ/DIT with a QA installation package so MDEQ/DIT may execute the test scripts in the QA environment to ensure all requirements were met and the software is bug-free.

## 2B Deliverables:

### 2B.1 Functional Requirements gathering

#### **Completion Criteria**

This task shall be complete when the **Functional Requirements Specification (FRS)** document has been signed-off by the DIT Project Manager.

### 2B.2 Development of System Design and System Design Documentation

#### **Completion Criteria**

This task shall be complete when the **System Design Documentation** has been signed-off by the DIT Project Manager.

### 2B.3 Modifications to existing Dry Cleaning Database including data dictionary

#### **Completion Criteria**

This deliverable shall be complete after the DIT Project Manager accepts and signs off on the modifications to the SQL database and Data Dictionary.

### 2B.4 Development of functional compliance & enforcement module (interface & business tier) as addition to Dry Cleaning System

#### **Completion Criteria**

This deliverable shall include two versions, the Beta and Final versions, in two phases of delivery. The 50% of deliverable shall be complete following successful installation of the “Beta version” of the Compliance & Enforcement module at the QA environment for testing and following sign off by the DIT Project Manager. The remaining 50% of deliverable shall be complete following successful installation of the “Final version” of the Compliance & Enforcement module at the QA environment for testing and following sign off by the DIT Project Manager.

### 2B.5 Testing of modifications to System and Database

#### **Completion Criteria**

This deliverable shall be complete after MDEQ/DIT have received and executed the test scripts in the Q&A environment and have verified that the system is operational. Acceptance will occur when the DIT Project Manager signs off on the modifications to the SQL database and Data Dictionary.



## **(2C) XML-based Environmental Data Collection System Compliance & Enforcement Enhancements**

The XML-based Data Collection System Compliance & Enforcement Enhancements will consider the existing business requirements, DIT infrastructure support, and data exchange needs to enhance the XML-based Data Collection System to support the Compliance & Enforcement Enhancements.

Contractor will enhance the Electronic Environmental (E2) Reporting System to be used as the base XML-based Data Collection System.

Contractor will perform the following tasks during this stage of the project:

1. XML Schema for the MERP-Dry Cleaning certification data flow: Contractor will develop an XML Schema for the MERP-Dry Cleaning certification data flow. The XML Schema will be developed based on the EDSC Data Standards, Core Reference Model (CRM) Schema Components, and will follow the latest Exchange Network Schema Development Guidelines (i.e. Design Rules & Conventions, XML Architecture, etc.). The XML Schema will include data elements for the online self certification, based on the data dictionary developed in Phase I.
2. Design and data mapping document for one Compliance Audit form: Contractor will design a Compliance Audit form, with input from DIT/MDEQ staff, which will be “plugged-in” to the E2 Reporting System. The data elements on the form will be mapped to the XML Schema created above and the XML Schema will be mapped to the Dry Cleaning database.
3. Implementation of one MDEQ Dry Cleaning online self-certification form in the XML-based Environmental Data Collection System: Contractor will enhance the E2 Reporting System, based on the design above, to include the online self-certification form. The enhancements will also include initial completion checks to ensure that the submission meets the minimum reporting requirements.
4. Implementation of data exchange module linking the XML-based Environmental Data Collection System with Dry Cleaning Database: Contractor will enhance the E2 Reporting System data exchange module, based on the data mapping, to exchange the self-certification information reported by the Dry Cleaners with the backend Dry Cleaning database.
5. XML-based Environmental Data Collection System-Dry Cleaning data flow configuration and installation: Contractor will assist DIT/MDEQ in configuring and installing the E2 Reporting System with Dry Cleaning data flow.
6. Testing: Contractor will develop test scripts for the E2 Reporting System Dry Cleaning enhancements based on the System Design Document, to verify the system meets the functional requirements. Contractor will provide MDEQ/DIT with a QA installation package so MDEQ/DIT may execute the test scripts in the QA environment to ensure all requirements were met and the software is bug-free.
7. MDEQ staff training session including training material on the XML-based Environmental Data Collection System: contractor will provide a 2-day onsite Staff End User training session, including training materials, for up to 10 MDEQ staff
8. MDEQ administrator training session including training material on the XML-based Environmental Data Collection System installation and administration: Contractor will provide a 1-day onsite Installation & Administrator training session, including training materials, for up to 5 MDEQ/DIT staff.
9. Design and data mapping document for Enforcement and Violation History Tracking screen: Contractor will design an Enforcement and Violation History Tracking screen, with input from DIT/MDEQ staff, which will be “plugged-in” to the E2 Reporting System. The Enforcement and Violation History Tacking screen will allow Dry Cleaners to log in to the E2 Reporting System and view a past history of any violation or enforcement actions taken against them. In addition, a data mapping document will be created to map the enforcement and violation data from the Dry Cleaning database to the E2 Reporting System.



10. Implementation of Enforcement and Violation History Tracking screen in the XML-based Environmental Data Collection System: Contractor will enhance the E2 Reporting System, based on the design and data mapping above, to include an Enforcement and Violation History Tracking screen to allow Dry Cleaners to log in to the E2 Reporting System and view a past enforcement and violation data.
11. System Documentation (User's Guide, Administrator's Guide) : Contractor will provide DIT/MDEQ with complete documentation for the enhancements to the E2 Reporting System. The documentation includes a User's Guide, to be used by the Dry Cleaners when using the system, and an Administrator's Guide, to be used by DIT/MDEQ staff when configuring, installing, and /or administering the E2 Reporting System.

## 2C Deliverables:

- 2C.1 XML Schema for the MERP-Dry Cleaning certification data flow

### **Completion Criteria**

This deliverable shall be complete when the DIT Project Manager approves and signs off on the XML Schema developed for the MERP-Dry Cleaning certification data flow.

- 2C.2 Design and data mapping document for one Compliance Audit form

### **Completion Criteria**

This deliverable shall be complete when the DIT Project Manager approves and signs off on the System Design Document (SDD) for the Compliance Audit form.

- 2C.3 Implementation of one MDEQ Dry Cleaning online self-certification form in the XML-based Environmental Data Collection System (E2 Reporting System)

### **Completion Criteria**

This deliverable shall include two versions, the Beta and Final versions, in two phases of delivery on the enhancements made to the E2 Reporting System. The 50% of deliverable shall be complete following successful installation of the "Beta version" of the self-certification form module for E2 at the QA environment for testing and following sign off by the DIT Project Manager. The remaining 50% of deliverable shall be complete following successful installation of the "Final version" of the self-certification form module for E2 at the QA environment for testing and following sign off by the DIT Project Manager.

- 2C.4 Implementation of data exchange module linking the XML-based Environmental Data Collection System (E2 Reporting System) with Dry Cleaning Database

### **Completion Criteria**

This deliverable shall be complete when the DIT Project Manager accepts and signs off on the enhancements made to the E2 Reporting System allowing system users to exchange the self-certification information reported by the Dry Cleaners with the backend Dry Cleaning database.

- 2C.5 XML-based Environmental Data Collection System (E2 Reporting System) data flow configuration and installation

### **Completion Criteria**

This deliverable shall be complete when the DIT Project Manager accepts and signs off on the work performed by the contractor configuring and installing the E2 Reporting System with Dry Cleaning data flow.

- 2C.6 Testing, including Test Scripts and QA installation package

### **Completion Criteria**

This deliverable shall be complete when the DIT Project Manager signs off that the system meets the functional and performance criteria of the system design specifications during the test.

- 2C.7 A 2-day MDEQ staff training session including training material on the XML-based Environmental Data Collection System (E2 Reporting System)

### **Completion Criteria**



This task shall be complete when the MDEQ/DIT receives the user training materials and onsite training. The DIT Project Manager will sign off that the training session was held and the training materials were received.

- 2C.8 A 1-day MDEQ administrator training session including training material on the XML-based Environmental Data Collection System (E2 Reporting System)

**Completion Criteria**

This task shall be complete when the MDEQ/DIT receives the administrator training materials and onsite training. The DIT Project Manager will sign off that the training session was held and the training materials were received.

- 2C.9 Design and data mapping document for Enforcement and Violation History Tracking screen

**Completion Criteria**

This task shall be complete when the DIT Project Manager accepts and signs off on the System Design Document (SDD) for the Enforcement and Violation History Tracking screen for the E2.

- 2C.10 Implementation of Enforcement and Violation History Tracking screen in the XML-based Environmental Data Collection System (E2 Reporting System)

**Completion Criteria**

This task shall be complete when the DIT Project Manager accepts and signs off on the Enhancement Tracking screens made to the E2 Reporting System which allow Dry Cleaners to log in to the E2 Reporting System and view a past enforcement and violation data.

- 2C.11 System Documentation (User's Guide, Administrator's Guide)

**Completion Criteria**

This task shall be complete when the Contractor provides DIT/MDEQ with complete documentation for the enhancements to the E2 Reporting System and DIT Project Manager accepts and signs off on the material.

## **(2D) Development of Field Inspection Compliance & Enforcement Capabilities**

The Field Inspection Compliance & Enforcement Development stage will consider the existing business requirements, DIT infrastructure support, and data exchange needs to implement the enhancement to the Customized Field Inspection Program..

Contractor will use its Customized Field Inspection Program as the basis for the Field Inspection Compliance & Enforcement Development. The customized field inspection program will be configured to support the Dry Cleaning specific data elements and business requirements.

Contractor will perform the following tasks during this stage of the project:

1. Compliance & Enforcement history tracking form design & development: Contractor will design a Compliance & Enforcement history tracking form, with input from DIT/MDEQ staff, which will be "plugged-in" to the customized field inspection program. The Compliance & Enforcement history tracking form will allow inspectors to view a history of all compliance and enforcement activities taken against a Dry Cleaner while in the field. After DIT/MDEQ has approved the design, Contractor will develop the Compliance & Enforcement history tracking form for use with the customized field inspection program.
2. Field Enforcement Issuance (Letter of Warning) Capabilities: Contractor will develop the Customized Field Inspection Program to allow inspectors to issue and print a Letter of Warning to dry cleaner while in the field, if the inspector detects any non-compliance.
3. Modified Data Synchronization module between mobile computing device (Tablet PC) and Dry Cleaning Application: Contractor will modify the data synchronization module between the customized



field inspection program and the Dry Cleaning application to include synchronization of all data of the enforcement action performed in the field.

## 2D Deliverables:

- 2D.1 Compliance & Enforcement history tracking form design & development

### **Completion Criteria**

This task shall be complete when the DIT Project Manager accepts and signs off on the Compliance & Enforcement history tracking form on the customized field inspection program.

- 2D.2 Field Enforcement Issuance (Letter of Warning) Capabilities

### **Completion Criteria**

This task shall be complete when the DIT Project Manager accepts and signs off on the enhancements made to the Customized Field Inspection Program that allow inspectors to issue and print a Letter of Warning to dry cleaner while in the field, if the inspector detects any non-compliance.

- 2D.3 Modified Data Synchronization module between mobile computing device (Tablet PC) and Dry Cleaning Application

### **Completion Criteria**

This task shall be complete when DIT Project Manager accepts and signs off on the modifications made to the Data Synchronization Module from the Customized Field Inspection Program to the MERP database for the Compliance & Enforcement data.

## **(2E) One-year MERP-Dry Cleaner Integration Support & Maintenance**

Contractor will perform the following tasks during this stage of the project:

1. One-year MERP-Dry Cleaning System support & maintenance: Contractor will provide technical telephone support service which includes a support number staffed by trained software specialists familiar with the software products provided under this contract. The support service will be available between the hours of 7 o'clock AM and 6 o'clock PM EST/DST, Monday through Friday, except for established State holidays.
2. Optional one-year MERP Dry Cleaning System support & maintenance: Contractor will provide optional one-year extensions to the support & maintenance. Support & maintenance will include items mentioned above.

## 2E Deliverables:

- 2E.1 MERP-Dry Cleaner Integration Support & Maintenance
- 2E.2 Optional One-Year extensions to the MERP-Dry Cleaner Integration Support & Maintenance

### **1.102 OUT OF SCOPE**

Purchase of handheld computing devices, user training on the device and all other items that are not specifically identified in **Article 1.1** are considered out of scope and must follow the change management process as outlined in the State of Michigan Project Management Methodology.

### **1.103 TECHNICAL ENVIRONMENT**

The State's technical support is provided by DIT. Contractor must comply with section 2.104 – IT Standards, of the contract terms and conditions.

This application will be written to reside on the internet/database hosting platform established for MDEQ.

The Contractors IT Infrastructure Support will be composed of the following:



1. **Web-based Project Server:** for project management, communication, and issue tracking.
2. **Microsoft SourceSafe Server:** for managing versioning of software development and to collaborate system development process in a team environment
3. **Tier II ISP Service Provider:** to provide complete web-based hosting to support Dry Cleaning QA testing, and secured VPN support to provide technical support to DIT in a timely manner
4. **A Dedicated System Innovation Center:** for simulating a working environment compatible with the customer's working environment for development, unit/integration testing, and deployment package preparation activities
5. **All major databases and system development/modeling tools:** required for the Dry Cleaning project are already in place at enfoTech. Most of enfoTech resources are very familiar with the database and software development tools required for the Dry Cleaning project.
6. **Automatic Server Backup and Restore:** for safe guarding work completed for the project and to allow a total recovery in case of a catastrophic event

## 1.2 Roles and Responsibilities

### 1.201 CONTRACTOR STAFF, ROLES, AND RESPONSIBILITIES

Key Personnel are identified in [Attachment A](#). All Contractor staff is accountable to the State's Project Managers.

Contractor will provide an internal project manager who will be responsible for completion of the project plan, and communication plan. Contractor's project manager will coordinate with the State's Project Managers all project related duties as they relate to Contractor staff involved in this project. In addition, Contractor will provide all necessary staff to assure delivery of all components of the project, including project strategy, reports, functional design specifications, etc., as specified.

Contractor will be responsible for database development and integrity

### 1.202 STATE STAFF, ROLES, AND RESPONSIBILITIES

Mr. **James Ostrowski**, Environmental Science and Services Division, **MDEQ**, will be the State's **MDEQ Project Manager**, with assistance from Mr. Michael Beaulac, State Assistant Administrator, MDEQ and Ms. Patty Bogard, DIT – Contract Services liaison. Mr. **Jeff Beasley**, **DIT**, will be the State's **DIT Project Manager**. The MDEQ Project Manager will be responsible for compiling all project documentation, reviewing the project plan, implementing the communication plan, coordinating resources between the State and the contractor, and for all change management documentation. As change orders are needed during this project, the MDEQ and DIT Project Managers will also complete risk assessment for each change request. The Project Managers will review and approve payments based on successful completion and signoff of deliverables. Upon project completion, the MDEQ and DIT Project Managers will complete a lessons learned session with Contractor and the Project team and document those lessons. The State's MDEQ Project Manager is responsible for:

- Conducting outreach with the dry cleaning sector and stakeholders
- Identifying project participants
- Developing audit procedures
- Developing compliance assistance documents in consultation with stakeholders
- Maintaining the official, approved EPA Quality Assurance Project Plan (QAPP)
- Ensuring all contractor staff have the necessary QA training to successfully complete tasks and functions in accordance with the QAPP
- Issuing quarterly and annual reports to EPA

Mr. Jeff Beasley, DIT – Project Manager, will also provide programming and node support and will be available to work with Contractor to acquire knowledge of the schema development and web publishing capabilities as they are being developed and deployed. Mr. Beasley can work directly with Contractor if desired and will provide maintenance and support for the completed application. He will also facilitate with the MDEQ Project Manager for the completion of all required documentation.



Other DIT and MDEQ Program staff will be available to assist with completion of all test scripts and will be responsible for final testing and approval of the deliverables. The DIT Agency Support team will provide the Quality Assurance and production environment for the roll out of this application. They will be responsible for all operational issues as they relate to the roll out.

### 1.203 OTHER ROLES AND RESPONSIBILITIES

The project sponsor for this project is Mr. James Ostrowski, ESSD, MDEQ with assistance from Mr. Michael Beaulac, State Assistant Administrator, MDEQ and Ms. Patty Bogard, DIT – Contract liaison and Mr. Jeff Beasley, DIT. Issues that cannot be resolved by the Project Managers will be elevated to Department of Management and Budget – Purchasing Operations for final determination. Subject to Article 1.403, any issue that affects the project budget and all change requests will require Mr. Ostrowski's, Mr. Beaulac's, Ms. Bogard's and Mr. Jeff Beasley's approvals.

Other stakeholders and partners to be identified will be responsible for the following activities:

- Assist in the identification of the dry cleaning facility universe
- Review prepared compliance materials.

## 1.3 Project Plan

### 1.301 PROJECT PLAN MANAGEMENT

A project plan must be delivered within the first twenty (20) business days after the effective date of the contract resulting from this Contract and the Purchase Order release. The project plan must reflect the tasks lists identified in each section of this Contract. Any changes to scope or schedule or budget must follow a change management process, and they must be agreed upon and communicated to the State of Michigan's Project Managers in writing explaining the reason for the change and the impact.

Contractor will manage the project in accordance with the best practices and guidelines in PMBOK® (Project Management Body of Knowledge from the Project Management Institute), in the framework outlined in the State of Michigan's Project Management Methodology (PMM). The Methodology is available at [www.michigan.gov/projectmanagement](http://www.michigan.gov/projectmanagement). The intent of these requirements are to deliver the highest quality solution by deploying and maintaining best practices, methodologies, tools, and knowledge within a structured framework.

The plan shall:

- (a) Provide documentation of Management and System requirements that provides an understanding the management approach and the full system operability, usability, and maintainability. The amount, type, and format of project and system documentation required will be discussed and agreed upon with the State's Project Managers, and is dependent upon the size and scope of the project.
- (b) Provide the State with clearly written processes for managing updates to software during and after the implementation of the system.
- (c) Provide for a plan showing Contractor responsibility in leading and managing end user testing.
- (d) Provide a detailed process for controlling the development of all deliverables. This would include controlling access to documents and version control.
- (e) Provide a performance measurement system that addresses the continuous measurement of actual achievements against a detailed performance plan to be able to predict the final costs and final schedule results for the project or operations.

Contractor will use an automated tool(s) for planning, monitoring, and tracking the Contract's progress and the level of effort of any Contractor personnel spent performing Services under the Contract. Contractors who use other than Microsoft Project, as a project management tool, need to specify this use.

The use of automated project management tools shall include the capability to produce:

- (a) Staffing tables with names of personnel assigned to Contract tasks.
- (b) Project plans showing tasks, subtasks, deliverables, and the resources required and allocated to each (including detailed plans for all Services to be performed within the next sixty (60) calendar



days, updated semi-monthly). Updates must include actual time spent on each task and a revised estimate to complete.

- (c) Graphs showing critical events, dependencies and decision points during the course of the Contract. Any tool(s) used by Contractor for such purposes must produce information of a type and in a manner and format that will support reporting in compliance with the State's standard to the extent such standard is described with reasonable detail in the Statement of Work.

The project plan will outline all tasks needed to complete the project, all resources needed, and a test plan. This project plan will include expected dates and duration of needed resources. The project plan will be reviewed by both the contractor's project manager and the State's project managers on a monthly basis and updated to include any necessary modification.

**1.302 REPORTS**

Reporting formats must be submitted to the State's Project Managers for approval within twenty (20) business days after the effective date of the contract resulting from the RFP and the Purchase Order release. Once the parties have agreed to the format of the report, it shall become the standard to follow for the duration of the contract. The contractor shall submit weekly reports using the agreed upon format. These reports should contain, at a minimum, the following:

- Accomplishments
- Tasks to be accomplished
- Hours expended during the report period, including estimated hours to complete
- Funds expended during the report period, including estimated funding to complete
- Issues or concerns, real or perceived, including issues resolved and a listing of all outstanding issues

Additionally, within twenty (20) business days after the effective date of the contract resulting from the RFP, the parties shall determine an appropriate set of meetings to be held between representatives of the State and Contractor. Contractor shall prepare and circulate an agenda prior to the meeting(s).

**1.4 Project Management**

**Project Management Principles**

The Contractor will implement the following principles of project management:

Management Principle	Objectives and Benefits
1. Team Building	<ul style="list-style-type: none"> <li>▪ Create an integrated project team with a strong synergy that shares a common project vision, objectives, and goal.</li> <li>▪ Clearly define roles and responsibilities among team members</li> </ul>
2. Communication Management	<ul style="list-style-type: none"> <li>▪ Improve project deliverables and shorten acceptance review via effective communication (requirements and expectation)</li> <li>▪ Help team members to stay focused</li> <li>▪ No surprises</li> </ul>
3. Quality Management	<ul style="list-style-type: none"> <li>▪ Quality assurance is an integrated part of Contractor's practice and process instead of a work task</li> <li>▪ Pertinent to EPA (<i>EPA Requirements for Quality Assurance Project Plans</i>, EPA QA/R-5 (March 2001) QA plan will be consulted and built into the overall project plan.</li> </ul>
4. Cost Management	<ul style="list-style-type: none"> <li>▪ Consider product/deliverable oriented approach to manage project cost (instead of time and material based)</li> <li>▪ Maximize the development of re-usable IT components to save resources and costs</li> <li>▪ Conduct the majority of system development offsite at enfoTech facilities to leverage existing application development infrastructure.</li> </ul>



Management Principle	Objectives and Benefits
5. Risk Management	<ul style="list-style-type: none"> <li>▪ Apply expertise to identify potential risk factors and communicate with all team members</li> <li>▪ Understand the risk factors and develop a plan to avoid or manage risk</li> <li>▪ Document lesson learned to minimize any future risk factors</li> </ul>
6. Change Management & Version Control	<ul style="list-style-type: none"> <li>▪ Adopt a “Build for Change” design and development philosophy to stay flexible with respect to solution implementations</li> <li>▪ Utilize Microsoft Project Server 2003 for Online Project Life</li> </ul>

Contractor’s project management approach consists of two major components: (1) a well-designed ‘Management Process’ for this project, and (2) a set of ‘Management Tools’ to facilitate management tasks. A detailed description of each component is provided in the following sections.

### Project Management Process

Contractor’s project management process will consist of the following:

1. **Project kickoff meeting:** This will be held to introduce the project team members, identify high-level project goals, and set a preliminary project schedule.
2. **Project Charter Document (Project Plan):** Contractor will work with the Michigan Project Manager to develop a Project Charter document that will provide a detailed description of tasks to be performed by enfoTech. Roles and responsibilities will be assigned to project team members. A project schedule will be developed that will coordinate with Dry Cleaning development activities.
3. **Site Visits:** Contractor will conduct the following site visits as they are found necessary for the success of the project (As determined by the State of Michigan Project Manager):
  - a. Project Kickoff
  - b. Business and Technical Requirements Gathering
  - c. System Design
  - d. System Review
  - e. Knowledge Transfer (Training)
  - f. Project Closeout
4. **Weekly Project Team Conference Calls/Meetings:** Contractor’s Project Manager will facilitate weekly project status meetings and/or conference calls and send out the meeting agenda and meeting notes including the status of the outstanding issues discussed during the meeting.
5. **Project Management:** Any additional services (or cost items) will be communicated to the Michigan project manager prior to engagement of such services and costs.
6. **Project Documentation:** Contractor’s Project Manager will ensure that necessary documentation is provided during the entire course of the project. This will include, but will not be limited to, project plan and approach work plans, site-visit reports, design documents, meeting notes, user’s manual, training manuals as well as documentation for the project deliverables.

Contractor will follow standard State and Federal procedures wherever applicable to the project.

### Project Management Tools

In addition to the standard face-to-face project review sessions and using Microsoft Project to manage milestones and schedules, Contractor will use the following tools to enhance project management capabilities:

#### **Conference Call Bridge:**

Periodically, conference calls will be held which will include Project Team members. A conference call bridge will be set up for each of these calls and will be hosted by Contractor. A conference call facilitation service that has been successfully used by Contractor on previous projects will be used. There will be no additional cost to DIT/MDEQ for this service



### **Web Conferencing Tool:**

Web conferencing capabilities will be available for project conference calls. This will allow all project team members to view presentations as they are being presented. Contractor currently uses two Web Conferencing tools: WebDemo (hosted internally by enfoTech) or WebEx.

### **Quality Assurance Plan**

The Quality Assurance plan is a business process that has been integrated into business practice throughout the enfoTech Corporation to ensure that work output will meet acceptance criteria. Contractor's QA process includes templates developed for software projects, change requirements management procedures, system defect management procedures, system testing procedures, and standard database operating procedures as described in Contractor's proposal. Contractor's QA process will ensure that the requirements of MDEQ's QAPP are met.

### **Cost Management**

Contractor's Project Manager will be responsible for monitoring project scope, deliverables, and spending to achieve a well balanced project outcome. Contractor's project manager will communicate to the DIT/MDEQ project manager on a pre-defined regular basis for project spending updates.

In addition, Contractor will provide the following management options for cost management monitoring.

1. Not-to-exceed Cost Option: Contractor will develop a "not-to-exceed" project cost estimate, based on a well defined and DIT/MDEQ manager-approved scope document, before project startup. Contractor commits to providing the project deliverables (in scope) under the estimated cost.
2. Time and Material Option: Contractor will offer standard time tracking software for managing project spending under this arrangement. Although most of the time and material service contract is geared towards skill supplement services, it is possible to work with the DIT/MDEQ manager to estimate a preliminary cost based on the project needs and Contractor's past experiences. Such projected costs will be useful to the DIT/MDEQ manager for budget planning purposes.
3. Change Request Management: An effective communication mechanism is the key to ensure that project resources stay focused on the project scope and deliverables. This communication can also be very effective for early detection of new project needs that were not identified in the original project scope. When there is a potential scope change, the engagement management will inform the DIT/MDEQ contact person to explore resolution options. Contractor will not engage new work without a written approval from the DIT/MDEQ program manager.

### **Project Conclusion and Sign-off**

In general, there are two levels of signoff on project completion. The first level will occur internally within Contractor to ensure that all project deliverables and documentation have been completed in good quality, within timeframe and within the budget allowed for the project. The second level will be approved by the DIT/MDEQ Project Manager in accordance with acceptance and final acceptance criteria.

### **Customer Feedback**

Contractor will obtain customer feedback to use as one of their bases for continuous process improvements. Customer feedback will be conducted by the enfoTech senior management via face-to-face meetings with the DIT/MDEQ program manager and/or program area representatives. Contractor's customer feedback program is an open process where feedback will be shared with internal project team members (as constructive suggestions) and will also prepare a formal response to address customer's concern, if any.



#### 1.401 ISSUE MANAGEMENT

An issue is an identified event that if not addressed may affect schedule, scope, quality, or budget.

The Contractor shall maintain an issue log for the project. The issue management log must be communicated to the State's project managers weekly, with email notifications and updates, as well as be electronically accessible at all times and viewable by the entire project team. The issue log must be updated weekly and must contain the following minimum elements:

- Description of issue
- Issue identification date
- Responsibility for resolving issue.
- Priority for issue resolution (to be mutually agreed upon by the State and the Contractor)
- Resources assigned responsibility for resolution
- Resolution date
- Resolution description

#### 1.402 RISK MANAGEMENT

A risk is an unknown circumstance or event that, if it occurs, may have a positive or negative impact on the project. Risk management generally involves (1) identification of the risk, (2) assigning a level of priority based on the probability of occurrence and impact to the project, (3) definition of mitigation strategies, and (4) monitoring of risk and mitigation strategy.

The Contractor must create a risk management plan for the project. A risk management plan format will be submitted to the State for approval within twenty (20) business days after the effective date of the contract resulting from the RFP. Once both parties have agreed to the format of the plan, it shall become the standard to follow for the duration of the contract. The plan must be updated bi-weekly, or as agreed upon. The risk management plan will be developed in accordance with the State's PMM methodology and the PMBOK<sup>®</sup> (Project Management Institute).

Contractor will implement the following practices as part of project implementation, to manage potential risks.

##### (A) Overall Project Risk Identification:

In a Risk Management plan, the following items will be identified by the engagement manager:

1. The most significant project risks,
2. Probability that the risk item will occur,
3. The priority for dealing with project risks,
4. Potential impact to the project if the risk does occur,
5. Approach for dealing with the risk, and
6. Contingency plans in the event the risk item does occur.

It is important to determine to what extent risks may impact the project outcome. Exposure to risk is the combination of the likelihood of an event happening and the consequences if it does happen. It is important to document the significant risks out of those that have been identified.

Once potential project risks are identified and prioritized, a risk handling plan will be developed to address those potential risks. Each Risk Handling Plan will include the following:

- **Risk Item Number:** Represents the unique number for the Risk Item
- **Date:** Calendar day the risk was identified and added to the Risk Management Plan
- **Priority:** Indicates the relative order in which the risk item is addressed.
- **Probability:** Indicates the likelihood that the risk item will occur during a project.
- **Risk Description:** Describes the risk situation in detail.
- **Internal/External:** Classifies the risk as either internal (within the Project Team's control) or external (outside the project team's control).
- **Potential Impact:** Documents the impact to the project if the risk occurs.



- **Approach:** Documents the project team's approach for handling the risk item. There are three options: **Accept** means no effort is made to avoid the risk item. This approach is usually employed because the risk items result from external factors over which you have no direct control. Two types of actions are generally taken under the acceptance approach--contingency plans and no action. **Mitigate** means the project team will place emphasis on actually avoiding, preventing, or reducing the risk item. **Transfer** means reducing the risk by transferring it to another entity that can better bear it.
- **Actions to be Taken:** Actions to be Taken defines the actions to be taken to reduce the risk of the item from occurring.
- **Contingency Plan:** Contingency Plan documents the actions to be taken if the risk item does occur.

#### 1.403 CHANGE MANAGEMENT

The following provides a detailed process to follow if a change to this Statement of Work (SOW) is required.

1. A Project Change Request (PCR) will be the vehicle for communicating change. The PCR must describe the change; the rationale for the change and the effect the change will have on the project.
2. The designated Project Manager of the requesting party will review the proposed change and determine whether to submit the request to the other party.
3. Contractor's Project Manager and the State will review the proposed change and approve it for further investigation or reject it. Contractor will specify any charges for such investigation. If the investigation is authorized, the State and Contractor will sign the PCR, which will constitute approval for the investigation charges. (The timing of signature by the State Project Managers will be in accordance with the State's Administrative Board or other applicable approval process). Contractor will invoice the State for any such charges. The investigation will determine the effect that the implementation of the PCR will have on price, schedule and other terms and conditions of the contract.

**A written Change Authorization and/or Project Change Request (PCR) must be signed by both parties to authorize implementation of the investigated changes. Change Authorizations and/or Project Changes Request (PCR) will be processed through the state's Purchasing Operations Office.**

If a proposed contract change is approved by DIT/MDEQ, a request for change will be submitted to the Department of Management and Budget, Purchasing Operations Buyer, who will make recommendations to the Director of Purchasing Operations regarding ultimate approval/disapproval of change request. If the DMB Purchasing Operations Director agrees with the proposed modification, and all required approvals are obtained (including State Administrative Board), the Purchasing Operations Buyer will issue an addendum to the Contract, via a Contract Change Notice. **Vendors who provide products or services prior to the issuance of a Contract Change Notice by the DMB Office of Purchasing Operations, risk non-payment for the out-of-scope/pricing products and/or services.**

#### 1.5 Acceptance 1.501 CRITERIA

The following criteria will be used by the State to determine Acceptance of the Services and/or Deliverables provided under this SOW.

The DIT/MDEQ **MERP for the Dry Cleaning Sector** project is an innovative effort that will require some flexibility during its inception. The specific data flows will be identified in the project plan and will be considered complete when fully tested in the QA environment and all issues associated with the deliverables are resolved.

Acceptance criteria for all data flows and reports will be dependent on applicable Exchange Network standards, guidelines and protocols, the federal Cross Media and Reporting Rule (CROMERRR) and individual state security and authentication criteria. Some acceptance criteria may require creation prior to delivery of the deliverable itself (see **Appendices II & III**).



1. The Contractor will provide a Deliverable Signoff form to the MDEQ Project Manager.
2. The MDEQ Project Manager will verify the completeness of the deliverables based on the contract requirements, service request and associated approved documents
3. The MDEQ Project Manager will notify the DIT Project Manager of their acceptance or denial of the deliverable.
4. The State's Project Manager will notify the contractor of acceptance of the deliverable or identify deficiencies to the contractor via E-Mail.
  - a. If the State's Project Managers determine the deliverable to be incomplete, the State's Project Managers will document why the deliverable is incomplete and provide the denial to the Contractor within **5** business days of the initial receipt of Deliverable Signoff Form provided by the Contractor. Failure to notify the contractor of the acceptance of a deliverable or identification of deficiencies within 5 business days will not result in automatic acceptance of the deliverable. However, the contractor may assess reasonable penalties at a daily rate for every day past the agreed upon acceptance time frame.
5. Invoices will be paid on a monthly basis upon acceptance of each deliverable.

### 1.502 FINAL ACCEPTANCE

Final acceptance of the DIT/MDEQ **MERP for the Dry Cleaning Sector** project will be based upon successful integration testing as outlined in the test plan supplied by Contractor. Successful completion of the integration testing will signal readiness to roll the application into the production environment. Final payment will be based upon a 30-day error free period of operation in the production hosting environment.

The following criteria will be used by the State to determine Final Acceptance of the Services and/or Deliverables provided under this SOW:

- The Contractor shall deliver an end-to-end testing plan for the system.
- The Contractor must conduct an end-to-end testing of the system.
- All errors found as a result of the testing must be corrected.
- All deliverables listed in Article 1, Statement of Work, will be delivered.
- All end user testing listed in Article 1, Statement of Work, will be completed.

### 1.6 Compensation and Payment

State shall pay Contractor an amount **not to exceed \$406,340** for the performance of all activities necessary for or incidental to the performance of work as set forth in this SOW. Authorized Services and Price List as follows:

All deliverables for both PHASE I and PHASE II are summarized in [Attachment F Pricing](#)

### 1.7 Additional Terms and Conditions Specific to this SOW

This Contract is funded in part with federal grant money. The following conditions apply to this Contract in addition to all other contract terms. In the event of a conflict, these Federal Conditions prevail. All applicable requirements of MDEQ's federal grants and 40 CFR Parts 30 through 35 are incorporated herein by reference. MDEQ will provide copies of its applicable federal grants for review upon request.

#### QUALITY ASSURANCE

All work funded by this Contract that involves the acquisition of environmental data generated from direct measurement activities, collected from other sources, or compiled from computerized data bases and information systems shall be implemented in accordance with an approved Quality Assurance Project Plan (QAPP). The QAPP shall comply with the guidelines specified in the document entitled "EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations," EPA QA/R5. No work covered by this requirement shall be implemented prior to receipt of written approval from MDEQ. Approval may also be required to be obtained from the U.S. Environmental Protection Agency (EPA) Project Officer. Any cost for environmental data acquisition incurred prior to approval of a QAPP by MDEQ and, as necessary, the EPA will be ineligible for reimbursement. Failure to meet the terms of the QAPP may result in the suspension of associated activities and reimbursement of expenses related to the associated activities.



## FEDERAL INTELLECTUAL PROPERTY REQUIREMENTS

A nonexclusive, perpetual, irrevocable license to use, copy, publish, and modify any intellectual property to which rights are granted or assigned to MDEQ in this Contract are hereby also granted to, assigned to, or reserved by the Federal Government. To the extent consistent with the rights of third parties, the Federal Government shall also have the right to sell any intellectual property right it reserves or acquires through this Contract. The GRANTEE shall include provisions adequate to effectuate the purposes of this paragraph in all subcontracts under this Agreement in the course of which Intellectual Property may be produced or acquired.

## ACKNOWLEDGMENT OF FINANCIAL SUPPORT

The GRANTEE shall acknowledge the financial support of the MDEQ and the U.S. EPA whenever work funded, in whole or part, by this Contract is publicized, or reported in news media or publications. All reports and other documents completed as a part of this Contract, other than documents prepared exclusively for internal use within the MDEQ, shall carry the following notation on the front cover or title page:

*PREPARED IN COOPERATION WITH THE MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY AND THE  
U.S. ENVIRONMENTAL PROTECTION AGENCY*

*The preparation of this report was financed through grants from the U.S. Environmental Protection Agency through the Michigan Department of Environmental Quality.*

## ACCESS TO RECORDS

The Federal Government and its agencies will have the same rights of access to records as are granted to, assigned to, or reserved by the MDEQ under this Contract.

## LOBBYING

1. The Contractor agrees to comply with Title 40 CFR Part 34, *New Restrictions on Lobbying*. The recipient shall include the language of this provision in award documents for all subcontracts exceeding \$100,000, and require that sub-recipients submit certification and disclosure forms accordingly.
2. In accordance with the Byrd Anti-Lobbying Amendment, any recipient who makes a prohibited expenditure under Title 40 CFR Part 34 or fails to file the required certification or lobbying forms shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure.
3. The Contractor shall forward to the MDEQ the Certification and Disclosures required to be submitted. Copies of the Certification and Disclosure forms are attached hereto as Exhibits to this Agreement.
4. Pursuant to EPA's annual Appropriations Act, the chief executive officer of the Contractor shall require that no grant funds have been used to engage in lobbying of the Federal Government or in litigation against the United States unless authorized under existing law. As mandated by this Act, the Contractor agrees to provide certification to the award official via EPA Form 5700-53, *Lobbying and Litigation Certificate*, attached hereto as an Exhibit to this Agreement, within 90 days after the end of project period.
5. The Contractor shall abide by its respective OMB Circular (A-21, A-87, or A-122), which prohibits the use of federal grant funds for litigation against the United States. Any Part 30 recipient shall abide by its respective OMB Circular (A-21 or A-122), which prohibits the use of Federal grant funds to participate in various forms of lobbying or other political activities.

## DEBARMENT

1. The Contractor shall fully comply with Subpart C of 40 CFR Part 32, entitled "Responsibilities of Participants Regarding Transactions." Contractor is responsible for ensuring that any lower tier covered transaction, as described in Subpart B of 40 CFR Part 32, entitled "Covered Transactions," includes a term or condition requiring compliance with Subpart C. Contractor is responsible for further requiring the inclusion of a similar term or condition in any subsequent lower tier covered transactions. Contractor acknowledges that failing to disclose the information required under 40 CFR 32.335 may result in the delay or negation of this assistance agreement, or pursuance of legal remedies, including suspension and debarment.
2. Contractor may access the Excluded Parties List System at <http://epls.arnet.gov>. This term and condition supersedes EPA Form 5700-49, "Certification Regarding Debarment, Suspension, and Other Responsibility Matters."

## PROCUREMENT OF RECYCLED MATERIALS

Any State agency or agency of a political subdivision of a State which is using appropriated Federal funds shall comply with the requirements set forth in Section 6002 of the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6962). Regulations issued under RCRA Section 6002 apply to any acquisition of an item



where the purchase price exceeds \$10,000 or where the quantity of such items acquired in the course of the preceding fiscal year was \$10,000 or more. RCRA Section 6002 requires that preference be given in procurement programs to the purchase of specific products containing recycled materials identified in guidelines developed by EPA. These guidelines are listed in 40 CFR 247.

**RECYCLED PAPER**

In accordance with EPA Order 1000.25 and Executive Order 13101, Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition, the recipient agrees to use recycled paper for all reports which are prepared as a part of this agreement and delivered to EPA. This requirement does not apply to reports prepared on forms supplied by EPA, or to Standard Forms, which are printed on recycled paper and are available through the General Services Administration. Please note that Section 901 of Executive Order 13101, dated September 14, 1998, revoked Executive Order 12873, Federal Acquisition, Recycling, and Waste Prevention in its entirety.

**PUBLIC ACCOMMODATION**

The recipient agrees to ensure that all conference, meeting, convention, or training space funded in whole or in part with federal funds, complies with the Hotel and Motel Fire Safety Act of 1990.

**MBE/WBE**

MDEQ has the following “fair share” objectives for MBE/WBE participation in the services requested in this bid document:

	MBE	WBE
Combined Rate	3%	5%

The Contractor shall take steps to encourage participation by minority business enterprises and women's business enterprises in the performance of this Contract. The Contractor accepts the applicable MBE/WBE “fair share” goals/objectives stated above.

The Contractor shall conduct the following actions in connection with solicitations for subcontractors and for suppliers (vendors) of contract-required goods and/or services:

- a. Place qualified small and minority businesses and women’s business enterprises on solicitation lists;
- b. Assure that small and minority businesses, and women’s business enterprises are solicited whenever they are potential sources;
- c. Divide total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women’s business enterprises;
- d. Establish delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women’s business enterprises;
- e. Use the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce, as appropriate;
- f. Each solicitation shall include a copy of the specifications, adequate information about the plans, scope of work, and requirements of the work to be subcontracted or the goods and/or services to be procured, and shall provide sufficient time to allow all interested parties the opportunity to participate effectively; and
- g. Records of solicitations for subcontractor and/or contractor services, including the responses received from potential MBE/WBE subcontractors and vendors, shall be maintained.

**SMALL BUSINESS IN RURAL AREAS**

The Contractor agrees to comply with Section 129 of Public Law 100-590, the Small Business Administration Reauthorization and Amendment Act of 1988. MDEQ, in this solicitation must utilize the following affirmative steps relative to Small Business in Rural Areas (SBRAs). Contractor, if awarding subcontracts, must take the same affirmative steps:

- a. Place SBRAs on the solicitation lists;
- b. Ensure that SBRAs are solicited whenever they are potential sources
- c. Divide total requirements when economically feasible, into small tasks or quantities to permit maximum participation by SBRAs.
- d. Establish delivery schedules, where the requirement permits, which encourage participation by SBRAs.



- e. Use the services of the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce, as appropriate.



## Article 2 – General Terms and Conditions

### 2.0 Introduction

#### 2.001 GENERAL PURPOSE

The Contract is for information technology contractual services for the State of Michigan entitled: Michigan Environmental Results Program for Dry Cleaning Sector. Orders will be issued directly to the Contractor by various State Agencies on the Purchase Order Contract Release Form.

#### 2.002 ISSUING OFFICE AND CONTRACT ADMINISTRATOR

The Contract is issued by Purchasing Operations, State of Michigan, Department of Management and Budget, hereinafter known as Purchasing Operations, for the Michigan Department of Environmental Quality, hereinafter known as MDEQ. Where actions are a combination of those of Purchasing Operations and the State agencies, the authority will be known as the State.

Purchasing Operations is the sole point of contact in the State with regard to all procurement and contractual matters relating to the commodities and/or services described herein. **Purchasing Operations is the only office authorized to negotiate, change, modify, amend, alter, clarify, etc., the specifications, terms, and conditions of the Contract.** Purchasing Operations will remain the SOLE POINT OF CONTACT throughout the procurement process.

**Contractor proceeds at its own risk if it takes negotiation, changes, modification, alterations, amendments, clarification, etc., of the specifications, terms, or conditions of the contract from any individual or office other than Purchasing Operations and the listed contract administrator**

All communications covering this procurement must be addressed to contract administrator indicated below:

Department of Management and Budget  
 Purchasing Operations  
 Attn: [Steve Motz](mailto:motzs@michigan.gov)  
 2nd Floor, Mason Building  
 P.O. Box 30026  
 Lansing, Michigan 48909  
 (517) 241-3215  
[motzs@michigan.gov](mailto:motzs@michigan.gov)

#### 2.003 NOTICE

Any notice given to a party under this Contract must be written and shall be deemed effective, if addressed to such party as addressed below upon (i) delivery, if hand delivered; (ii) receipt of a confirmed transmission by facsimile if a copy of the notice is sent by another means specified in this section; (iii) the third (3rd) Business Day after being sent by U.S. mail, postage pre-paid, return receipt requested; or (iv) the next Business Day after being sent by a nationally recognized overnight express courier with a reliable tracking system.

#### 2.004 CONTRACT TERM

The term of this Contract will be for **three (3)** years and will commence with the issuance of a Contract. This will begin October 1, 2006 through October 15, 2009.

**Option.** The State reserves the right to exercise **2 one-year options**, at the sole option of the State. Contractor performance, quality of products, price, cost savings, and the contractor's ability to deliver on time are some of the criteria that will be used as a basis for any decision by Purchasing Operations to exercise an option year.

**Extension.** At the sole option of the State, the contract may also be extended. Contractor performance, quality of products, price, cost savings, and the contractor's ability to deliver on time are



some of the criteria that will be used as a basis for any decision by Purchasing Operations to exercise an option year.

Written notice will be provided to the Contractor within, provided that the State gives the Contractor a preliminary written notice of its intent to extend at least 30 days before the contract expires. The preliminary notice does not commit the Government to an extension. If the Government exercises this option, the extended contract shall be considered to include this option clause.

## **2.005 GOVERNING LAW**

The Contract shall in all respects be governed by, and construed in accordance with, the laws of the State of Michigan. By signing this agreement, contractor consents to personal jurisdiction in the State of Michigan. Any dispute arising herein shall be resolved in the State of Michigan.

## **2.006 APPLICABLE STATUTES**

The following statutes, rules, and laws are applicable to the performance of this contract; some statutes are reflected in the clauses of this contract. This list is NOT exhaustive.

MI Uniform Commercial Code (MIUCC) MCL 440. (All sections unless otherwise altered by agreement)  
 MI OSHA MCL §§ 408.1001 – 408.1094  
 Freedom of Information Act (FIOA) MCL §§ 15.231, et seq.  
 Natural Resources and Environmental Protection Act MCL §§ 324.101, et seq.  
 MI Consumer Protection Act MCL §§ 445.901 – 445.922  
 Laws relating to wages, payments of wages, and fringe benefits on state projects MCL §§ 408.551 – 408.558, 408.471 – 408.490, 1965 PA 390.  
 Department of Civil Service Rules and regulations  
 Elliot Larsen Civil Rights Act MCL §§ 37.2201, et seq.  
 Persons with disabilities Civil Rights Act MCL §§ 37.1101, et seq.  
 MCL §§ 423.321, et seq.  
 MCL § 18.1264 (law regarding debarment)  
 Davis-Bacon Act (DBA) 40 USCU §§ 276(a), et seq.  
 Contract Work Hours and Safety Standards Act (CWHSAA) 40 USCS § 327, et seq.  
 Business Opportunity Act for Persons with Disabilities MCL §§ 450.791 – 450.795  
 Rules and regulations of the Environmental Protection Agency  
 Internal Revenue Code  
 Rules and regulations of the Equal Employment Opportunity Commission (EEOC)  
 The Civil Rights Act of 1964, USCS Chapter 42  
 Title VII, 42 USCS §§ 2000e et seq.  
 The Americans with Disabilities Act (ADA), 42 USCS §§ 12101 et seq.  
 The Age Discrimination in Employment Act of 1967 (ADEA), 29 USCS §§ 621, 623 et seq.  
 The Old Workers Benefit and Protection Act of 1990 (OWBPA), 29 USCS §§ 626, et seq.  
 The Family Medical Leave Act of 1993 (FMLA), 29 USC §§ 651 et seq.  
 The Fair Labor Standards Act (FLSA), 29 USC §§ 201 et seq.  
 Pollution Prevention Act of 1990 (PPA) 42 U.S.C. §13106  
 Sherman Act, 15 U.S.C.S. § 1 et seq.  
 Robinson-Patman Act, 15 U.S.C.S. § 13 et seq.  
 Clayton Act, 15 U.S.C.S. § 14 et seq.

## **2.007 RELATIONSHIP OF THE PARTIES**

The relationship between the State and the Contractor is that of client and independent Contractor. No agent, employee, or servant of the Contractor or any of its subcontractors shall be or shall be deemed to be an employee, agent, or servant of the State for any reason. The Contractor will be solely and entirely responsible for its acts and the acts of its agents, employees, servants and subcontractors during the performance of this Contract.

**2.008 HEADINGS**

Captions and headings used in the Contract are for information and organization purposes. Captions and headings, including inaccurate references, do not, in any way, define or limit the requirements or terms and conditions of this Contract.

**2.009 MERGER**

This document constitutes the complete, final, and exclusive agreement between the parties. All other prior writings and negotiations are ineffective.

**2.010 SEVERABILITY**

Each provision of the Contract shall be deemed to be severable from all other provisions of the Contract and, if one or more of the provisions of the Contract shall be declared invalid, the remaining provisions of the Contract shall remain in full force and effect.

**2.011 SURVIVORSHIP**

Any provisions of the Contract that impose continuing obligations on the parties including, but not limited to the Contractor's indemnity and other obligations shall survive the expiration or cancellation of the Contract for any reason.

**2.012 NO WAIVER OF DEFAULT**

The failure of a party to insist upon strict adherence to any term of the Contract shall not be considered a waiver or deprive the party of the right thereafter to insist upon strict adherence to that term or any other term of the Contract.

**2.013 PURCHASE ORDERS**

Orders for delivery of commodities and/or services may be issued directly by the State Departments through the issuance of a Purchase Order Form referencing this Contract (Blanket Purchase Order) agreement and the terms and conditions contained herein. Contractor is asked to reference the Purchase Order Number on all invoices for payment.

**2.1 Contractor Obligations****2.101 ACCOUNTING RECORDS**

The Contractor and all subcontractors shall maintain all pertinent financial and accounting records and evidence pertaining to the Contract in accordance with generally accepted principles of accounting and other procedures specified by the State of Michigan. Financial and accounting records shall be made available, upon request, to the State of Michigan, its designees, or the Michigan Auditor General at any time during the Contract period and any extension thereof, and for three years from expiration date and final payment on the Contract or extension thereof.

**2.102 NOTIFICATION OF OWNERSHIP**

The Contractor shall make the following notifications in writing:

1. When the Contractor becomes aware that a change in its ownership or officers has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify Purchasing Operations within 30 days.
2. The Contractor shall also notify Purchasing Operations within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership or officers.



The Contractor shall:

1. Maintain current, accurate, and complete inventory records of assets and their costs;
2. Provide Purchasing Operations or designated representative ready access to the records upon request;
3. Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership or officer changes; and
4. Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership or officer change.

### 2.103 SOFTWARE COMPLIANCE

The contractor warrants that all software for which the contractor either sells or licenses to the State of Michigan and used by the State prior to, during or after the calendar year 2000, includes or shall include, at no added cost to the State, design and performance so the State shall not experience software abnormality and/or the generation of incorrect results from the software, due to date oriented processing, in the operation of the business of the State of Michigan.

The software design, to insure year 2000 compatibility, shall include, but is not limited to: data structures (databases, data files, etc.) that provide 4-digit date century; stored data that contain date century recognition, including, but not limited to, data stored in databases and hardware device internal system dates; calculations and program logic (e.g., sort algorithms, calendar generation, event recognition, and all processing actions that use or produce date values) that accommodates same century and multi-century formulas and date values; interfaces that supply data to and receive data from other systems or organizations that prevent non-compliant dates and data from entering any State system; user interfaces (i.e., screens, reports, etc.) that accurately show 4 digit years; and assurance that the year 2000 shall be correctly treated as a leap year within all calculation and calendar logic.

### 2.104 IT STANDARDS

1. EXISTING TECHNOLOGY STANDARDS. The Contractor will adhere to all existing standards as described within the comprehensive listing of the State's existing technology standards at <http://michigan.gov/dit>.
2. PM METHODOLOGY STANDARDS. The State has adopted a standard documented Project Management Methodology (PMM) for use on all Information Technology (IT) based projects. This policy is referenced in the document titled "Project Management Methodology" – DMB Administrative Guide Procedure 1380.02 issued June 2000. Vendors may obtain a copy of this procedure, as well as the State of Michigan Project Management Methodology, from the Department of Information Technology's website at <http://www.michigan.gov/projectmanagement>.

The contractor shall use the State's PPM to manage State of Michigan Information Technology (IT) based projects. The Requesting agency will provide the applicable documentation and internal agency processes for the methodology. If the contractor requires training on the methodology, those costs shall be the responsibility of the contractor, unless otherwise stated.

3. ADHERENCE TO PORTAL TECHNOLOGY TOOLS. The State of Michigan, Department of Information Technology, has adopted the following tools as its Portal Technology development efforts:
  - Vignette Content Management and personalization Tool
  - Inktomi Search Engine
  - E-Pay Payment Processing Module
  - Websphere Commerce Suite for e-Store applications



Vendors must use the Portal Technology Tools to implement web content management and deployment efforts for agencies. Tools used for web-based application development must work in conjunction with Vignette and Inktomi. The interaction with Vignette and Inktomi must be coordinated with the Department of Information Technology, Enterprise Application Services Office, e-Michigan Web Development team.

Under special circumstances vendors that are compelled to use alternate tools must submit an exception request to the Department of Information Technology, Enterprise Application Services Office, e-Michigan Web Development team, for evaluation and approval of each alternate tool prior to proposal evaluation by the State.

## **2.105 PERFORMANCE AND RELIABILITY EVALUATION (PARE)**

Refer to Acceptance of Deliverables (as explained in 1.5)

## **2.106 PREVAILING WAGE**

The rates of wages and fringe benefits to be paid each class of individuals employed by the Contractor, its subcontractors, their subcontractors, and all persons involved with the performance of this contract in privity of contract with the Contractor shall not be less than the wage rates and fringe benefits established by the Michigan Department of Consumer and Industry Service, Bureau of Safety and Regulation, Wage/Hour Division schedule of occupational classification and wage rates and fringe benefits for the local where the work is to be performed. The term Contractor shall include all general contractors, prime contractors, project managers, trade contractors, and all of their contractors or subcontractors and persons in privity of contract with them.

The Contractor, its subcontractors, their subcontractors, and all persons involved with the performance of this contract in privity of contract with the Contractor shall keep posted on the work site, in a conspicuous place, a copy of all wage rates and fringe benefits as prescribed in the contract. You must also post, in a conspicuous place, the address and telephone number of the Michigan Department of Consumer and Industry Services, the office responsible for enforcement of the wage rates and fringe benefits. You shall keep an accurate record showing the name and occupation of the actual wage and benefits paid to each individual employed in connection with this contract. This record shall be available to the State upon request for reasonable inspection.

If any trade is omitted from the list of wage rates and fringe benefits to be paid to each class of individuals by the Contractor, it is understood that the trades omitted shall also be paid not less than the wage rate and fringe benefits prevailing in the local where the work is to be performed.

## **2.107 PAYROLL AND BASIC RECORDS**

Payrolls and basic records relating to the performance of this contract shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

The Contractor shall submit a copy of all payrolls to the Contract Administrator upon request. The payrolls submitted shall set out accurately and completely all of the information required to be maintained as indicated above.

The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors upon request from the Contract Administrator

The Contractor or subcontractor shall permit the Contract Administrator or representatives of the Contract Administrator or the State of Michigan to interview employees during working hours on the job.



If the Contractor or subcontractor fails to submit required records or to make them available, the Contract Administrator may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment.

#### **2.108 COMPETITION IN SUB-CONTRACTING**

The Contractor shall select subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the contract.

#### **2.109 CALL CENTER DISCLOSURE**

Contractor and/or all subcontractors involved in the performance of this contract providing call or contact center services to the State of Michigan must disclose the location of its call or contact center services to inbound callers. Failure to disclose this information shall be a material breach of this agreement.

### **2.2 Contract Performance**

#### **2.201 TIME IS OF THE ESSENCE**

Contractor/Vendor is on notice that time is of the essence in the performance of this contract. Late performance will be considered a material breach of this contract, giving the State a right to invoke all remedies available to it under this contract.

#### **2.202 CONTRACT PAYMENT SCHEDULE**

The specific payment schedule for any Contract(s) entered into, as the State and the Contractor(s) will mutually agree upon the result of this RFP. The schedule should show payment amount and should reflect actual work done by the payment dates, less any penalty cost charges accrued by those dates. As a general policy statements shall be forwarded to the designated representative by the 15th day of the following month.

#### **2.203 POSSIBLE PROGRESS PAYMENTS**

The Government may make progress payments to the Contractor when requested as work progresses, but not more frequently than monthly, in amounts approved by the Contract Administrator, after negotiation. Contractor must show verification of measurable progress at the time of requesting progress payments.

#### **2.204 POSSIBLE PERFORMANCE-BASED PAYMENTS (Actual performance rendered)**

RESERVED

#### **2.205 ELECTRONIC PAYMENT AVAILABILITY**

Electronic transfer of funds is available to State contractors. Contractor is required to register with the State of Michigan Office of Financial Management so the State can make payments related to this Contract electronically at [www.cpexpress.state.mi.us](http://www.cpexpress.state.mi.us).

#### **2.206 PERFORMANCE OF WORK BY CONTRACTOR**

RESERVED

### **2.3 Contract Rights and Obligations**

#### **2.301 INCURRING COSTS**

The State of Michigan is not liable for any cost incurred by the Contractor prior to signing of the Contract. The State fiscal year is October 1st through September 30th. The Contractor(s) should realize that payments in any given fiscal year are contingent upon enactment of legislative appropriations. Total liability of the State is limited to terms and conditions of the Contract.



## 2.302 CONTRACTOR RESPONSIBILITIES

The Contractor will be required to assume responsibility for all contractual activities, whether or not that Contractor performs them. Further, the State will consider the Contractor to be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the anticipated Contract. If any part of the work is to be subcontracted, the Contract must include a list of subcontractors, including firm name and address, contact person and a complete description of work to be subcontracted. The State reserves the right to approve subcontractors and to require the Contractor to replace subcontractors found to be unacceptable. The Contractor is totally responsible for adherence by the subcontractor to all provisions of the Contract. Any change in subcontractors must be approved by the State, in writing, prior to such change.

## 2.303 ASSIGNMENT AND DELEGATION

The Contractor shall not have the right to assign this Contract, to assign its rights under this contract, or delegate any of its duties or obligations under the Contract to any other party (whether by operation of law or otherwise), without the prior written consent of the State. Any purported assignment in violation of this Section shall be null and void. Further, the Contractor may not assign the right to receive money due under the Contract without the prior written consent of the Director of Purchasing Operations.

The Contractor shall not delegate any duties or obligations under the Contract to a subcontractor other than a subcontractor named and approved in the bid unless the Director of Purchasing Operations has given written consent to the delegation.

**Bidder must obtain the approval of the Director of Purchasing Operations before using a place of performance that is different from the address that bidder provided in the bid.**

## 2.304 TAXES

Sales Tax: For purchases made directly by the State of Michigan, the State is exempt from State and Local Sales Tax. Prices shall not include such taxes. Exemption Certificates for State Sales Tax will be furnished upon request.

Federal Excise Tax: The State of Michigan may be exempt for Federal Excise Tax, or such taxes may be reimbursable, if articles purchased under this Contract are used for the State's exclusive use. Certificates exclusive use for the purposes of substantiating a tax-free, or tax-reimbursable sale will be sent to the Contractor upon request. If a sale is tax exempt or tax reimbursable under the Internal Revenue Code, prices shall not include the Federal Excise Tax.

The State's Tax Exempt Certification is available for contractor viewing upon request to the Contract Administrator.

## 2.305 INDEMNIFICATION

### General Indemnification

To the fullest extent permitted by law, the Contractor shall indemnify, defend and hold harmless the State, its departments, divisions, agencies, sections, commissions, officers, employees and agents, from and against all losses, liabilities, penalties, fines, damages and claims (including taxes), and all related costs and expenses (including reasonable attorneys' fees and disbursements and costs of investigation, litigation, settlement, judgments, interest and penalties), arising from or in connection with any of the following:

1. Any claim, demand, action, citation or legal proceeding against the State, its employees and agents arising out of or resulting from (1) the product provided or (2) performance of the work, duties, responsibilities, actions or omissions of the Contractor or any of its subcontractors under this Contract.
2. Any claim, demand, action, citation or legal proceeding against the State, its employees and agents arising out of or resulting from a breach by the Contractor of any representation or warranty made by the Contractor in the Contract;



3. Any claim, demand, action, citation or legal proceeding against the State, its employees and agents arising out of or related to occurrences that the Contractor is required to insure against as provided for in this Contract;
4. Any claim, demand, action, citation or legal proceeding against the State, its employees and agents arising out of or resulting from the death or bodily injury of any person, or the damage, loss or destruction of any real or tangible personal property, in connection with the performance of services by the Contractor, by any of its subcontractors, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable; provided, however, that this indemnification obligation shall not apply to the extent, if any, that such death, bodily injury or property damage is caused solely by the negligence or reckless or intentional wrongful conduct of the State;
5. Any claim, demand, action, citation or legal proceeding against the State, its employees and agents which results from an act or omission of the Contractor or any of its subcontractors in its or their capacity as an employer of a person.

#### Patent/Copyright Infringement Indemnification

To the fullest extent permitted by law, the Contractor shall indemnify, defend and hold harmless the State, its employees and agents from and against all losses, liabilities, damages (including taxes), and all related costs and expenses (including reasonable attorneys' fees and disbursements and costs of investigation, litigation, settlement, judgments, interest and penalties) incurred in connection with any action or proceeding threatened or brought against the State to the extent that such action or proceeding is based on a claim that any piece of equipment, software, commodity or service supplied by the Contractor or its subcontractors, or the operation of such equipment, software, commodity or service, or the use or reproduction of any documentation provided with such equipment, software, commodity or service infringes any United States or foreign patent, copyright, trade secret or other proprietary right of any person or entity, which right is enforceable under the laws of the United States. In addition, should the equipment, software, commodity, or service, or the operation thereof, become or in the Contractor's opinion be likely to become the subject of a claim of infringement, the Contractor shall at the Contractor's sole expense (i) procure for the State the right to continue using the equipment, software, commodity or service or, if such option is not reasonably available to the Contractor, (ii) replace or modify the same with equipment, software, commodity or service of equivalent function and performance so that it becomes non-infringing, or, if such option is not reasonably available to Contractor, (iii) accept its return by the State with appropriate credits to the State against the Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

#### Code Indemnification

To the extent permitted by law, the Contractor shall indemnify, defend and hold harmless the State from any claim, loss, or expense arising from Contractor's breach of the No Surreptitious Code Warranty.

#### Indemnification Obligation Not Limited

In any and all claims against the State of Michigan, or any of its agents or employees, by any employee of the Contractor or any of its subcontractors, the indemnification obligation under the Contract shall not be limited in any way by the amount or type of damages, compensation or benefits payable by or for the Contractor or any of its subcontractors under worker's disability compensation acts, disability benefits acts, or other employee benefits acts. This indemnification clause is intended to be comprehensive. Any overlap in sub clauses, or the fact that greater specificity is provided as to some categories of risk, is not intended to limit the scope of indemnification under any other sub clause.

#### Continuation of Indemnification Obligation

The duty to indemnify will continue in full force and affect notwithstanding the expiration or early termination of the Contract with respect to any claims based on facts or conditions, which occurred prior to termination.

#### Indemnification Procedures

The procedures set forth below shall apply to all indemnity obligations under this Contract.



- (a) After receipt by the State of notice of the action or proceeding involving a claim in respect of which it will seek indemnification, the State shall promptly notify Contractor of such claim in writing and take or assist Contractor in taking, as the case may be, any reasonable action to avoid the imposition of a default judgment against Contractor. No failure to so notify Contractor shall relieve Contractor of its indemnification obligations except to the extent that Contractor can demonstrate damages attributable to such failure. Within ten (10) days following receipt of written notice from the State relating to any claim, Contractor shall notify the State in writing whether Contractor agrees to assume control of the defense and settlement of that claim (a "Notice of Election"). After notifying Contractor of a claim and prior to the State receiving Contractor's Notice of Election, the State shall be entitled to defend against the claim, at Contractor's expense, and Contractor will be responsible for any reasonable costs incurred by the State in defending against the claim during such period.
- (b) If Contractor delivers a Notice of Election relating to any claim: (i) the State shall be entitled to participate in the defense of such claim and to employ counsel at its own expense to assist in the handling of such claim and to monitor and advise the State about the status and progress of the Defense; (ii) Contractor shall, at the request of the State, demonstrate to the reasonable satisfaction of the State, Contractor's financial ability to carry out its defense and indemnity obligations under this Contract; (iii) Contractor shall periodically advise the State about the status and progress of the defense and shall obtain the prior written approval of the State before entering into any settlement of such claim or ceasing to defend against such claim and (iv) to the extent that any principles of Michigan governmental or public law may be involved or challenged, the State shall have the right, at its own expense, to control the defense of that portion of such claim involving the principles of Michigan governmental or public law. Notwithstanding the foregoing, the State may retain control of the defense and settlement of a claim by written notice to Contractor given within ten (10) days after the State's receipt of Contractor's information requested by the State pursuant to clause (ii) of this paragraph if the State determines that Contractor has failed to demonstrate to the reasonable satisfaction of the State Contractor's financial ability to carry out its defense and indemnity obligations under this Section. Any litigation activity on behalf of the State of Michigan, or any of its subdivisions pursuant to this Section, must be coordinated with the Department of Attorney General. In the event the insurer's attorney represents the State pursuant to this Section, the insurer's attorney may be required to be designated as a Special Assistant Attorney General by the Attorney General of the State of Michigan.
- (c) If Contractor does not deliver a Notice of Election relating to any claim of which it is notified by the State as provided above, the State shall have the right to defend the claim in such manner as it may deem appropriate, at the cost and expense of Contractor. If it is determined that the claim was one against which Contractor was required to indemnify the State, upon request of the State, Contractor shall promptly reimburse the State for all such reasonable costs and expenses.

### **2.306 LIMITATION OF LIABILITY**

Except as set forth herein, neither the Contractor nor the State shall be liable to the other party for indirect or consequential damages, even if such party has been advised of the possibility of such damages. Such limitation as to indirect or consequential damages shall not apply to claims for infringement of United States patent, copyright, trademarks or trade secrets; to claims for personal injury or damage to property caused by the gross negligence or willful misconduct of the Contractor; to claims covered by other specific provisions of this Contract calling for liquidated damages; to Contractor's indemnification obligations (2.305); or to court costs or attorney's fees awarded by a court in addition to damages after litigation based on this Contract.

### **2.307 CONTRACT DISTRIBUTION**

Purchasing Operations shall retain the sole right of Contract distribution to all State agencies and local units of government unless other arrangements are authorized by Purchasing Operations.

**2.308 FORM, FUNCTION, AND UTILITY**

If the Contract is for use of more than one State agency and if the good or service provided under this Contract do not meet the form, function, and utility required by a State agency, that agency may, subject to State purchasing policies, procure the good or service from another source.

**2.309 ASSIGNMENT OF ANTITRUST CAUSE OF ACTION**

For and in consideration of the opportunity to submit a quotation and other good and valuable consideration, the bidder hereby assigns, sells and transfers to the State of Michigan all rights, title and interest in and to all causes of action it may have under the antitrust laws of the United States or this State for price fixing, which causes of action have accrued prior to the date of payment and which relate solely to the particular goods, commodities, or services purchased or procured by this State pursuant to this transaction.

**2.310 RESERVED****2.311 TRANSITION ASSISTANCE**

If this Contract is not renewed at the end of this term, or is canceled prior to its expiration, for any reason, the Contractor must provide for up to 60 days after the expiration or cancellation of this Contract, all reasonable transition assistance requested by the State, to allow for the expired or canceled portion of the Services to continue without interruption or adverse effect, and to facilitate the orderly transfer of such services to the State or its designees. Such transition assistance will be deemed by the parties to be governed by the terms and conditions of this Contract, (notwithstanding this expiration or cancellation) except for those Contract terms or conditions that do not reasonably apply to such transition assistance. The State shall pay the Contractor for any resources utilized in performing such transition assistance at the most current rates provided by the Contract for Contract performance.

**2.312 WORK PRODUCT**

Work Products shall be considered works made by the Contractor for hire by the State and shall belong exclusively to the State and its designees, unless specifically provided otherwise by mutual agreement of the Contractor and the State. If by operation of law any of the Work Product, including all related intellectual property rights, is not owned in its entirety by the State automatically upon creation thereof, the Contractor agrees to assign, and hereby assigns to the State and its designees the ownership of such Work Product, including all related intellectual property rights. The Contractor agrees to provide, at no additional charge, any assistance and to execute any action reasonably required for the State to perfect its intellectual property rights with respect to the aforementioned Work Product.

Notwithstanding any provision of this Contract to the contrary, any preexisting work or materials including, but not limited to, any routines, libraries, tools, methodologies, processes or technologies (collectively, the "Development Tools") created, adapted or used by the Contractor in its business generally, including any and all associated intellectual property rights, shall be and remain the sole property of the Contractor, and the State shall have no interest in or claim to such preexisting work, materials or Development Tools, except as necessary to exercise its rights in the Work Product. Such rights belonging to the State shall include, but not be limited to, the right to use, execute, reproduce, display, perform and distribute copies of and prepare derivative works based upon the Work Product, and the right to authorize others to do any of the foregoing, irrespective of the existence therein of preexisting work, materials and Development Tools, except as specifically limited herein.

The Contractor and its subcontractors shall be free to use and employ their general skills, knowledge and expertise, and to use, disclose, and employ any generalized ideas, concepts, knowledge, methods, techniques or skills gained or learned during the course of performing the services under this Contract, so long as the Contractor or its subcontractors acquire and apply such information without disclosure of any confidential or proprietary information of the State, and without any unauthorized use or disclosure of any Work Product resulting from this Contract.



### 2.313 PROPRIETARY RIGHTS

#### A. Software Ownership

##### **Ownership of Work Product by State.**

All Deliverables, the preexisting work defined in section 2.312, shall be owned by the State and shall be considered works made for hire by the Contractor for the State. The State shall own all United States and international copyrights, trademarks, patents or other proprietary rights in the Deliverables.

**Vesting of Rights.** With the sole exception of the following preexisting licensed works: [E2], the Contractor shall assign, and upon creation of each Deliverable automatically assigns, to the State, ownership of all United States and international copyrights, trademarks, patents, or other proprietary rights in each and every Deliverable, whether or not registered by the Contractor, insofar as any such Deliverable, by operation of law, may not be considered work made for hire by the Contractor for the State. From time to time upon State's request, the Contractor and/or its personnel shall confirm such assignment by execution and delivery of the assignments, confirmations of assignment, or other written instruments as the State may request. The State shall have the right to obtain and hold in its own name all copyright, trademark, and patent registrations and other evidence of rights that may be available for Deliverables.

### 2.314 WEBSITE INCORPORATION

State expressly states that it will not be bound by any content on the Contractor's website, even if the Contractor's documentation specifically referenced that content and attempts to incorporate it into any other communication, unless the State has actual knowledge of such content and has expressly agreed to be bound by it in a writing that has been manually signed by an authorized representation of the State.

## 2.4 Contract Review and Evaluation

### 2.401 CONTRACT COMPLIANCE INSPECTOR

Upon receipt at Purchasing Operations of the properly executed Contract Agreement(s), the person named below will be allowed to oversee the Contract performance on a day-to-day basis during the term of the Contract. However, overseeing the Contract implies **no authority to negotiate, change, modify, clarify, amend, or otherwise alter the terms, conditions, and specifications of such Contract(s). That authority is retained by Purchasing Operations.** The Contract Compliance Inspector for this project is:

Patty Bogard  
Department of Information Technology  
Bureau of Strategic Policy – Contract Office  
Constitution Hall, Atrium South Tower  
525 W. Allegan St, Lansing, Mi 48933  
517-335-4051; fax: 517-241-8852  
*BogardP@michigan.gov*

### 2.402 PERFORMANCE REVIEWS

Purchasing Operations in conjunction with the Michigan Department of Environmental Quality may review with the Contractor their performance under the Contract. Performance reviews shall be conducted quarterly, semi-annually or annually depending on Contractor's past performance with the State. Performance reviews shall include, but not limited to, quality of products/services being delivered and provided, timeliness of delivery, percentage of completion of orders, the amount of back orders, status of such orders, accuracy of billings, customer service, completion and submission of required paperwork, the number of substitutions and the reasons for substitutions, and other requirements of the Contract.

Upon a finding of poor performance, which has been documented by Purchasing Operations, the Contractor shall be given an opportunity to respond and take corrective action. If corrective action is not taken in a reasonable amount of time as determined by Purchasing Operations, the Contract may be canceled for



default. Delivery by the Contractor of unsafe and/or adulterated or off-condition products to any State agency is considered a material breach of Contract subject to the cancellation provisions contained herein.

#### **2.403 AUDIT OF CONTRACT COMPLIANCE/ RECORDS AND INSPECTIONS**

The Contractor agrees that the State may, upon 24-hour notice, perform an audit at Contractor's location(s) to determine if the Contractor is complying with the requirements of the Contract. The Contractor agrees to cooperate with the State during the audit and produce all records and documentation that verifies compliance with the Contract requirements.

### **2.5 Quality and Warranties**

#### **2.501 PROHIBITED PRODUCTS**

The State will not accept salvage, distressed, outdated or discontinued merchandise. Shipping of such merchandise to any State agency, as a result of an order placed against the Contract, shall be considered default by the Contractor of the terms and conditions of the Contract and may result in cancellation of the Contract by the State. The brand and product number offered for all items shall remain consistent for the term of the Contract, unless Purchasing Operations has approved a change.

#### **2.502 RESERVED**

#### **2.503 RESERVED**

#### **2.504 GENERAL WARRANTIES (goods)**

*Warranty of Merchantability* – Goods provided by contractor under this agreement shall be merchantable. All goods provided under this contract shall be of good quality within the description given by the State, shall be fit for their ordinary purpose, shall be adequately contained and packaged within the description given by the State, shall conform to the agreed upon specifications, and shall conform to the affirmations of fact made by the contractor or on the container or label.

*Warranty of fitness for a particular purpose* – When contractor has reason to know or knows any particular purpose for which the goods are required, and the State is relying on the contractor's skill or judgment to select or furnish suitable goods, there is a warranty that the goods are fit for such purpose.

*Warranty of title* – Contractor shall, in providing goods to the State, convey good title in those goods, whose transfer is right and lawful. All goods provided by contractor shall be delivered free from any security interest, lien, or encumbrance of which the State, at the time of contracting, has no knowledge. Goods provided by contractor, under this agreement, shall be delivered free of any rightful claim of any third person by of infringement or the like.

#### **2.505 CONTRACTOR WARRANTIES**

The Contract will contain customary representations and warranties by the Contractor, including, without limitation, the following:

1. The Contractor will perform all services in accordance with high professional standards in the industry;
2. The Contractor will use adequate numbers of qualified individuals with suitable training, education, experience and skill to perform the services;
3. The Contractor will use its best efforts to use efficiently any resources or services necessary to provide the services that are separately chargeable to the State;
4. The Contractor will use its best efforts to perform the services in the most cost effective manner consistent with the required level of quality and performance;
5. The Contractor will perform the services in a manner that does not infringe the proprietary rights of any third party;



6. The Contractor will perform the services in a manner that complies with all applicable laws and regulations;
7. The Contractor has duly authorized the execution, delivery and performance of the Contract;
8. The Contractor is capable in all respects of fulfilling and shall fulfill all of its obligations under this contract.
9. The contract appendices, attachments, and exhibits identify all equipment and software services necessary for the deliverable(s) to perform and operate in compliance with the contract's requirements.
10. The Contractor is the lawful owner or licensee of any Deliverable licensed or sold to the state by Contractor or developed by Contractor under this contract, and Contractor has all of the rights necessary to convey to the state the ownership rights or license use, as applicable, of any and all Deliverables.
11. If, under this Contract, Contractor procures any equipment, software or other Deliverable for the State (including equipment, software and other Deliverables manufactured, re-marketed or otherwise sold by Contractor under Contractor's name), then in addition to Contractor's other responsibilities with respect to such items as set forth in this Contract, Contractor shall assign or otherwise transfer to the State or its designees, or afford the State the benefits of, any manufacturer's warranty for the Deliverable.
12. The contract signatory has the power and authority, including any necessary corporate authorizations, necessary to enter this contract, on behalf of Contractor.
13. The Contractor is qualified and registered to transact business in all locations where required.
14. Neither the Contractor nor any Affiliates, nor any employee of either, has, shall have, or shall acquire, any contractual, financial, business, or other interest, direct or indirect, that would conflict in any manner or degree with Contractor's performance of its duties and responsibilities to the State under this Contract or otherwise create an appearance of impropriety with respect to the award or performance of this Agreement. Contractor shall notify the State within two (2) days of any such interest that may be incompatible with the interests of the State.
15. All financial statements, reports, and other information furnished by Contractor to the State as part of its response to the ITB or otherwise in connection with the award of this Contract fairly and accurately represent the business, properties, financial condition, and results of operations of Contractor as of the respective dates, or for the respective periods, covered by such financial statements, reports, other information. Since the respective dates or periods covered by such financial statements, reports, or other information, there have been no material adverse changes in the business, properties, financial condition, or results of operations of Contractor. All written information furnished to the State by or behalf of Contractor in connection with this Contract, including its bid, is true, accurate, and complete, and contains no untrue statement of material fact or omits any material fact necessary to make such information not misleading.

#### **2.506 STAFF**

The State reserves the right to approve the Contractor's assignment of Key Personnel to this project and to recommend reassignment of personnel deemed unsatisfactory by the State.

The Contractor shall not remove or reassign, without the State's prior written approval any of the Key Personnel until such time as the Key Personnel have completed all of their planned and assigned responsibilities in connection with performance of the Contractor's obligations under this Contract. The Contractor agrees that the continuity of Key Personnel is critical and agrees to the continuity of Key Personnel. Removal of Key Personnel without the written consent of the State may be considered by the State to be a material breach of this Contract. The prohibition against removal or reassignment shall not



apply where Key Personnel must be replaced for reasons beyond the reasonable control of the Contractor including but not limited to illness, disability, resignation or termination of the Key Personnel's employment.

## 2.507 SOFTWARE WARRANTIES

### (a) Performance Warranty

The Contractor represents and warrants that Deliverables, after Final Acceptance, will perform and operate in compliance with the requirements and other standards of performance contained in this Contract (including all descriptions, specifications and drawings made a part of the Contract) for a period of ninety (90) days. In the event of a breach of this warranty, Contractor will promptly correct the affected Deliverable(s) at no charge to the State.

### (b) No Surreptitious Code Warranty

The Contractor represents and warrants that no copy of licensed Software provided to the State contains or will contain in any Self-Help Code or any Unauthorized Code as defined below. This warranty is referred to in this Contract as the "No Surreptitious Code Warranty."

As used in this Contract, "Self-Help Code" means any back door, time bomb, drop dead device, or other software routine designed to disable a computer program automatically with the passage of time or under the positive control of a person other than the licensee of the software. Self-Help Code does not include Software routines in a computer program, if any, designed to permit an owner of the computer program (or other person acting by authority of the owner) to obtain access to a licensee's computer system(s) (e.g. remote access via modem) for purposes of maintenance or technical support.

As used in this Contract, "Unauthorized Code" means any virus, Trojan horse, spyware, worm or other Software routines or components designed to permit unauthorized access to disable, erase, or otherwise harm software, equipment, or data; or to perform any other such actions. The term Unauthorized Code does not include Self-Help Code.

In addition, Contractor will use up-to-date commercial virus detection software to detect and remove any viruses from any software prior to delivering it to the State.

### (c) Calendar Warranty

The Contractor represents and warrants that all software for which the Contractor either sells or licenses to the State of Michigan and used by the State prior to, during or after the calendar year 2000, includes or shall include, at no added cost to the State, design and performance so the State shall not experience software abnormality and/or the generation of incorrect results from the software, due to date oriented processing, in the operation of the business of the State of Michigan.

The software design, to insure calendar year rollover compatibility, shall include, but is not limited to: data structures (databases, data files, etc.) that provide 4-digit date century; stored data that contain date century recognition, including, but not limited to, data stored in databases and hardware device internal system dates; calculations and program logic (e.g., sort algorithms, calendar generation, event recognition, and all processing actions that use or produce date values) that accommodates same century and multi-century formulas and date values; interfaces that supply data to and receive data from other systems or organizations that prevent non-compliant dates and data from entering any State system; user interfaces (i.e., screens, reports, etc.) that accurately show 4 digit years; and assurance that the year 2000 shall be correctly treated as a leap year within all calculation and calendar logic.

### (d) Third-party Software Warranty

The Contractor represents and warrants that it will disclose the use or incorporation of any third-party software into the Deliverables. At the time of Delivery, the Contractor shall provide in writing the name and use of any Third-party Software, including information regarding the Contractor's



authorization to include and utilize such software. The notice shall include a copy of any ownership agreement or license that authorizes the Contractor to use the Third-party Software.

**2.508 RESERVED – EQUIPMENT WARRANTY**

**2.509 PHYSICAL MEDIA WARRANTY**

Contractor represents and warrants that each licensed copy of the Software provided by the Contractor is free from physical defects in the media that tangibly embodies the copy. This warranty does not apply to defects discovered more than thirty (30) days after that date of Final Acceptance of the Software by the State. This warranty does not apply to defects arising from acts of Excusable Failure. If the Contractor breaches this warranty, then the State shall be entitled to replacement of the non-compliant copy by Contractor, at Contractor's expense (including shipping and handling).

**2.6 Breach of Contract**

**2.601 BREACH DEFINED**

Failure to comply with articles, sections, or subsections of this agreement, or making any false statement in this agreement will be considered a material breach of this agreement giving the state authority to invoke any and all remedies available to it under this agreement.

In addition to any remedies available in law and by the terms of this contract, if the Contractor breaches Sections 2.508, 2.509, or 2.510, such a breach may be considered as a default in the performance of a material obligation of this contract.

**2.602 NOTICE AND THE RIGHT TO CURE**

In the event of a curable breach by the Contractor, the State shall provide the Contractor written notice of the breach and a time period to cure said breach described in the notice. This section requiring notice and an opportunity to cure shall not be applicable in the event of successive or repeated breaches of the same nature or if the State determines in its sole discretion that the breach poses a serious and imminent threat to the health or safety of any person or the imminent loss, damage or destruction of any real or tangible personal property.

**2.603 EXCUSABLE FAILURE**

1. Neither party shall be liable for any default or delay in the performance of its obligations under the Contract if and to the extent such default or delay is caused, directly or indirectly, by: fire, flood, earthquake, elements of nature or acts of God; riots, civil disorders, rebellions or revolutions in any country; the failure of the other party to perform its material responsibilities under the Contract (either itself or through another contractor); injunctions (provided the injunction was not issued as a result of any fault or negligence of the party seeking to have its default or delay excused); or any other cause beyond the reasonable control of such party; provided the non-performing party and its subcontractors are without fault in causing such default or delay, and such default or delay could not have been prevented by reasonable precautions and cannot reasonably be circumvented by the non-performing party through the use of alternate sources, workarounds or other means, including disaster recovery plans. In such event, the non-performing party will be excused from any further performance or observance of the obligation(s) so affected for as long as such circumstances prevail and such party continues to use its best efforts to recommence performance or observance whenever and to whatever extent possible without delay provided such party promptly notifies the other party in writing of the inception of the excusable failure occurrence, and also of its abatement or cessation.
2. If any of the above enumerated circumstances substantially prevent, hinder, or delay performance of the services necessary for the performance of the State's functions for more than 14 consecutive days, and the State determines that performance is not likely to be resumed within a period of time that is satisfactory to the State in its reasonable discretion, then at the State's option: (a) the State may procure the affected services from an alternate source, and the State shall not be liable for payments for the unperformed services under the Contract for so long as the delay in performance shall continue; (b) the State may cancel any portions of the Contract so affected and the charges payable hereunder shall be equitably adjusted to reflect those services canceled; or (c) the Contract



will be canceled without liability of the State to the Contractor as of the date specified by the State in a written notice of cancellation to the Contractor. The Contractor will not have the right to any additional payments from the State as a result of any excusable failure occurrence or to payments for services not rendered as a result of the excusable failure condition. Defaults or delays in performance by the Contractor which are caused by acts or omissions of its subcontractors will not relieve the Contractor of its obligations under the Contract except to the extent that a subcontractor is itself subject to any excusable failure condition described above and the Contractor cannot reasonably circumvent the effect of the subcontractor's default or delay in performance through the use of alternate sources, workaround plans or other means.

## 2.7 Remedies

### 2.701 CANCELLATION

The State may cancel this Contract without further liability or penalty to the State, its departments, divisions, agencies, offices, commissions, officers, agents, and employees for any of the following reasons:

1. Material Breach by the Contractor. In the event that the Contractor breaches any of its material duties or obligations under the Contract, which are either not capable of or subject to being cured, or are not cured within the time period specified in the written notice of breach provided by the State, or pose a serious and imminent threat to the health and safety of any person, or the imminent loss, damage or destruction of any real or tangible personal property, the State may, having provided written notice of cancellation to the Contractor, cancel this Contract in whole or in part, for cause, as of the date specified in the notice of cancellation.

In the event that this Contract is cancelled for cause, in addition to any legal remedies otherwise available to the State by law or equity, the Contractor shall be responsible for all costs incurred by the State in canceling the Contract, including but not limited to, State administrative costs, attorneys fees and court costs, and any additional costs the State may incur to procure the services required by this Contract from other sources. All excess re-procurement costs and damages shall not be considered by the parties to be consequential, indirect or incidental, and shall not be excluded by any other terms otherwise included in the Contract.

In the event the State chooses to partially cancel this Contract for cause charges payable under this Contract will be equitably adjusted to reflect those services that are cancelled.

In the event this Contract is cancelled for cause pursuant to this section, and it is therefore determined, for any reason, that the Contractor was not in breach of contract pursuant to the provisions of this section, that cancellation for cause shall be deemed to have been a cancellation for convenience, effective as of the same date, and the rights and obligations of the parties shall be limited to that otherwise provided in the Contract for a cancellation for convenience.

2. Cancellation For Convenience By the State. The State may cancel this Contract for its convenience, in whole or part, if the State determines that such a cancellation is in the State's best interest. Reasons for such cancellation shall be left to the sole discretion of the State and may include, but not limited to (a) the State no longer needs the services or products specified in the Contract, (b) relocation of office, program changes, changes in laws, rules, or regulations make implementation of the Contract services no longer practical or feasible, and (c) unacceptable prices for additional services requested by the State. The State may cancel the Contract for its convenience, in whole or in part, by giving the Contractor written notice 30 days prior to the date of cancellation. If the State chooses to cancel this Contract in part, the charges payable under this Contract shall be equitably adjusted to reflect those services that are cancelled.
3. Non-Appropriation. In the event that funds to enable the State to effect continued payment under this Contract are not appropriated or otherwise made available. The Contractor acknowledges that, if this Contract extends for several fiscal years, continuation of this Contract is subject to appropriation or availability of funds for this project. If funds are not appropriated or otherwise made available, the State shall have the right to cancel this Contract at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of cancellation to the Contractor. The State shall give the Contractor written notice of such non-appropriation or unavailability within 30 days after it receives notice of such non-appropriation or unavailability.



4. Criminal Conviction. In the event the Contractor, an officer of the Contractor, or an owner of a 25% or greater share of the Contractor, is convicted of a criminal offense incident to the application for or performance of a State, public or private Contract or subcontract; or convicted of a criminal offense including but not limited to any of the following: embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, attempting to influence a public employee to breach the ethical conduct standards for State of Michigan employees; convicted under State or federal antitrust statutes; or convicted of any other criminal offense which in the sole discretion of the State, reflects upon the Contractor's business integrity.
5. Approvals Rescinded. The State may terminate this Contract without further liability or penalty in the event any final administrative or judicial decision or adjudication disapproves a previously approved request for purchase of personal services pursuant to Constitution 1963, Article 11, section 5, and Civil Service Rule 7. Termination may be in whole or in part and may be immediate as of the date of the written notice to Contractor or may be effective as of the date stated in such written notice.

## 2.702 RIGHTS UPON CANCELLATION

### A. Rights and Obligations Upon Termination

- (1) If this Contract is terminated by the State for any reason, Contractor shall (a) stop all work as specified in the notice of termination, (b) take any action that may be necessary, or that the State may direct, for preservation and protection of Deliverables or other property derived or resulting from this Contract that may be in Contractor's possession, (c) return all materials and property provided directly or indirectly to Contractor by any entity, agent or employee of the State, (d) in the event that the Contractor maintains title in equipment and software that is intended to be transferred to the State at the termination of the Contract, Contractor will transfer title in, and deliver to, the State, unless otherwise directed, all Deliverables and other Developed Materials intended to be transferred to the State at the termination of the Contract and which are resulting from the Contract (which shall be provided to the State on an "As-Is" basis except to the extent the amounts paid by the State in respect of such items included compensation to Contractor for the provision of warranty services in respect of such materials), and (e) take any action to mitigate and limit any potential damages, or requests for Contractor adjustment or termination settlement costs, to the maximum practical extent, including terminating or limiting as otherwise applicable those subcontracts and outstanding orders for material and supplies resulting from the terminated Contract.
- (2) In the event the State terminates this Contract prior to its expiration for its own convenience, the State shall pay Contractor for all charges due for Services provided prior to the date of termination and, if applicable, as a separate item of payment pursuant to this Contract, for partially completed Deliverables, on a percentage of completion basis. All completed or partially completed Deliverables prepared by Contractor pursuant to this Contract shall, at the option of the State, become the State's property, and Contractor shall be entitled to receive equitable fair compensation for such Deliverables. Regardless of the basis for the termination, the State shall not be obligated to pay, or otherwise compensate, Contractor for any lost expected future profits, costs or expenses incurred with respect to Services not actually performed for the State.
- (3.) If any such termination by the State is for cause, the State shall have the right to set-off against any amounts due Contractor the amount of any damages for which Contractor is liable to the State under this Contract or pursuant to law or equity.
- (4.) Upon a good faith termination, the State shall have the right to assume, at its option, any and all subcontracts and agreements for services and materials provided under this Contract, and may further pursue completion of the Services under this Contract by replacement contract or otherwise as the State may in its sole judgment deem expedient.



## B. Termination Assistance

If the Contract (or any Statement of Work issued under it) is terminated for any reason before completion, Contractor agrees to provide for up to two-hundred seventy (270) calendar days after the termination all reasonable termination assistance requested by the State to facilitate the orderly transfer of such Services to the State or its designees in a manner designed to minimize interruption and adverse effect. Such termination assistance will be deemed by the parties to be governed by the terms and conditions of the Contract (notwithstanding its termination) other than any terms or conditions that do not reasonably apply to such termination assistance. The State shall compensate Contractor for such termination assistance at the same rates and charges set forth in the Contract on a time and materials basis in accordance with the Labor Rates indicated within Contractor's pricing section. If the Contract is terminated by Contractor under **Section 20**, then Contractor may condition its provision of termination assistance under this Section on reasonable assurances of payment by the State for such assistance, and any other amounts owed under the Contract.

## C. Reservation of Rights

Any termination of the Contract or any Statement of Work issued under it by a party shall be with full reservation of, and without prejudice to, any rights or remedies otherwise available to such party with respect to any claims arising prior to or as a result of such termination.

## D. End of Contract Transition

In the event the Contract is terminated, for convenience or cause, or upon expiration, the Contractor agrees to comply with direction provided by the State to assist in the orderly transition of equipment, services, software, leases, etc. to the State or a third party designated by the State. In the event of termination or the expiration of the Contract, the Contractor agrees to make all reasonable efforts to effect an orderly transition of services within a reasonable period of time that in no event will exceed 270 calendar days. These efforts shall include, but are not limited to, the following:

- (1) Personnel - The Contractor shall work with the State, or a specified third party, to develop a transition plan setting forth the specific tasks and schedule to be accomplished by the parties, to effect an orderly transition. The Contractor shall allow as many personnel as practicable to remain on the job to help the State, or a specified third party, maintain the continuity and consistency of the services required by the Contract. In addition, during or following the transition period, in the event the State requires the Services of the Contractor's subcontractors, as necessary to meet its needs, Contractor agrees to reasonably, and with good-faith, work with the State to use the Services of Contractor's subcontractors.
- (2) Knowledgeable Personnel. Contractor will make available to the State or a Third Party Provider knowledgeable personnel familiar with the operational processes and procedures used to deliver products and services to the State. The Contractor personnel will work with the State or third party to help develop a mutually agreeable transition plan, work to transition the process of ordering, shipping and invoicing equipment and services to the State.
- (3) Information - The Contractor agrees to provide reasonable detailed specifications for all Services needed by the State, or specified third party, to properly provide the services required under the Contract. The Contractor will also provide any licenses required to perform the Services under the Contract.
- (4) Software. - The Contractor shall reasonably assist the State in the acquisition of any Contractor software required to perform the Services under the Contract. This shall include any documentation being used by the Contractor to perform the Services under the Contract. If the State transfers any software licenses to the Contractor, those licenses shall, upon expiration of the Contract, transfer back to the State at their current revision level.
- (5) Payment - If the transition results from a termination for any reason, reimbursement shall be governed by the termination provisions of the Contract. If the transition results from expiration, the Contractor will be reimbursed for all reasonable transition costs (i.e. costs incurred within



the agreed period after Contract expiration that result from transition operations). The hourly rates or fixed price to be charged will be agreed upon prior to the work commencing.

- (6) Single Point of Contact. Contractor will maintain a Single Point of Contact (SPOC) for the State after termination of the Contract until all product and service obligations have expired.

#### **E. Transition out of this Contract**

- (1) In the event that this Contract is terminated, dissolved, voided, rescinded, nullified, or otherwise rendered unenforceable, the Contractor agrees to perform the following obligations, and any others upon which the State and the Contractor agree:
- (i) Cooperating with any contractors, vendors, or other entities with whom the State contracts to meet its telecommunication needs, for at least two hundred and seventy (270) days after the termination of this Contract;
  - (ii) Reserved.
  - (iii) Providing the State with all asset management data generated from the inception of this Contract through the date on which this Contract is terminated, in a comma-delimited format unless otherwise required by the Program Office;
  - (iv) Reconciling all accounts between the State and the Contractor;
  - (v) Allowing the State to request the winding up of any pending or ongoing projects at the price to which the State and the Contractor agreed at the inception of the project;
  - (vi) Freezing all non-critical software changes;
  - (vii) Notifying all of the Contractor's subcontractors of procedures to be followed during the transition out phase;
  - (viii) Assisting with the communications network turnover, if applicable;
  - (ix) Assisting in the execution of a parallel operation until the effective date of termination of this Contract
  - (x) Answering questions regarding post-migration services;
  - (xi) Delivering to the State any remaining owed reports and documentation still in the Contractor's possession.
- (2) In the event that this Contract is terminated, dissolved, voided, rescinded, nullified, or otherwise rendered unenforceable, the State agrees to perform the following obligations, and any others upon which the State and the Contractor agree:
- (i) Reconciling all accounts between the State and the Contractor;
  - (ii) Completing any pending post-project reviews.

#### **2.703 RESERVED – LIQUIDATED DAMAGES**

#### **2.704 STOP WORK**

1. The State may, at any time, by written stop work order to the Contractor, require that the Contractor stop all, or any part, of the work called for by this Contract for a period of up to 90 days after the stop work order is delivered to the Contractor, and for any further period to which the parties may agree. The stop work order shall be specifically identified as such and shall indicate that it is issued under this section. Upon receipt of the stop work order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the stop work order during the period of work stoppage. Within the period of the stop work order, the State shall either:
  - a) Cancel the stop work order; or
  - b) Cancel the work covered by the stop work order as provided in the cancellation section of this Contract.
2. If a stop work order issued under this section is canceled or the period of the stop work order or any extension thereof expires, the Contractor shall resume work. The State shall make an equitable adjustment in the delivery schedule, the contract price, or both, and the Contract shall be modified, in writing, accordingly, if:



- a) The stop work order results in an increase in the time required for, or in the Contractor's costs properly allocable to the performance of any part of this Contract; and
  - b) The Contractor asserts its right to an equitable adjustment within 30 days after the end of the period of work stoppage; provided that if the State decides the facts justify the action, the State may receive and act upon a proposal submitted at any time before final payment under this Contract.
3. If the stop work order is not canceled and the work covered by the stop work order is canceled for reasons other than material breach, the State shall allow reasonable costs resulting from the stop work order in arriving at the cancellation settlement.
  4. If a stop work order is not canceled and the work covered by the stop work order is canceled for material breach, the State shall not allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop work order.

An appropriate equitable adjustment may be made in any related contract of the Contractor that provides for adjustment and is affected by any stop work order under this section. The State shall not be liable to the Contractor for loss of profits because of a stop work order issued under this section.

## **2.705 SUSPENSION OF WORK**

The Contract Administrator may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contract Administrator determines appropriate for the convenience of the Government.

If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contract Administrator in the administration of this contract, or (2) by the Contract Administrator's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract.

A claim under this clause shall not be allowed:

- (1) For any costs incurred more than 20 days before the Contractor shall have notified the Contract Administrator in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order); and
- (2) Unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

## **2.8 Changes, Modifications, and Amendments**

### **2.801 APPROVALS**

The Contract may not be modified, amended, extended, or augmented except by a writing executed by the parties hereto, and any breach or default by a party shall not be waived or released other than in writing signed by the other party.

### **2.802 TIME EXTENTIONS**

Time extensions for contract changes will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of performance as described in the statement of work. The change order granting the time extension may provide that the contract completion date will be extended only for those specific elements related to the changed work and that the remaining contract completion dates for all other portions of the work will not be altered. The change order also may provide an equitable readjustment of liquidated damages under the new completion schedule.



### 2.803 MODIFICATION

Purchasing Operations reserves the right to modify this contract at any time during the contract term. Such modification may include changing the locations to be serviced, additional locations to be serviced, method or manner of performance of the work, number of days service is to be performed, addition or deletion of tasks to be performed, addition or deletion of items, and/or any other modifications deemed necessary. Any changes in pricing proposed by the Contractor resulting from the proposed changes are subject to acceptance by the State. Changes may be increases or decreases. **IN THE EVENT PRICES ARE NOT ACCEPTABLE TO THE STATE, THE CONTRACT SHALL BE SUBJECT TO COMPETITIVE BIDDING BASED UPON THE NEW SPECIFICATION.**

**The State reserves the right to add an item(s) that is not described on the item listing and is available from the Contract contractor.** The item(s) may be included on the Contract, only if prior written approval has been granted by Purchasing Operations.

### 2.804 AUDIT AND RECORDS UPON MODIFICATION

DEFINITION: records includes books, documents, accounting procedures and practices, and other data, regardless of whether such items are in written form, electronic form, or in any other form

Contractor shall be required to submit cost or pricing data with the pricing of any modification of this contract to the Contract Administrator in Purchasing Operations. Data may include accounting records, payroll records, employee time sheets, and other information the state deems necessary to perform a fair evaluation of the modification proposal. Contract Administrator or authorized representative of the state shall have the right to examine and audit all of the contractor's records, including computations and projections, related to:

1. The proposal for modification;
2. The discussions conducted on the proposal, including those related to negotiation;
3. Pricing of the modification; or
4. Performance of the modification.

Contractor shall make available at its office at all reasonable times the materials described in the paragraphs above.

If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement.

### 2.805 CHANGES

- (a) The Contract Administrator may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes:
  - (1) In the specifications (including drawings and designs);
  - (2) In the method or manner of performance of the work;
  - (3) In the Government-furnished facilities, equipment, materials, services, or site; or
  - (4) Directing acceleration in the performance of the work.
- (a) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contract Administrator that causes a change shall be treated as a change order under this clause; Provided, that the Contractor gives the Contract Administrator written notice stating:
  - (1) The date, circumstances, and source of the order; and
  - (2) That the Contractor regards the order as a change order.
- (b) Except as provided in this clause, no order, statement, or conduct of the Contract Administrator shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.



## APPENDIX I

### Project Team Facilitation Support

Facilitated sessions provided by contractual support for this project may include the following:

- Facilitation (leadership) of information gathering session(s) to capture business requirements, including business process and technical considerations related to the designated project.
- Provision of web and phone conferencing capabilities for all needed meetings.
- Development of meeting agendas and post meeting notes with action items and follow-on activities discussed during the meetings.
- Facilitation (leadership) of review session(s) to discuss draft report documents and determine the appropriate revisions.
- Preparation of documents for the design of solution components that meet user/system requirements, including the selection of alternative approaches.
- Documentation, production, and delivery of a Scope Statement for the requested deliverables based on the recommendations and completed requirements.
- Assistance with Quality Assurance of the effort.
- Provision of status reports as requested by the project manager and to accommodate all invoices.
- Ensure the completeness, accuracy, and integrity of deliverables whether developing or reviewing.
- Communication of project issues and concerns to the Project Managers and Team for resolution and follow-up.
- Completion of assigned tasks in the time frame agreed upon with the project leaders
- Adherence of all state and federal standards and procedures as deemed applicable for the project.



## APPENDIX II

### Existing Dry Cleaning SQL Database Table and Form Screens

#### SQL TABLE

```
CREATE TABLE [dbo].[t_Address] (
    [Change_ID] [int] IDENTITY (1, 1) NOT NULL ,
    [Cust_ID] [int] NOT NULL ,
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Addr_Loc] [nvarchar] (45) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Addr_Str1] [nvarchar] (45) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Addr_Str2] [nvarchar] (45) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Addr_City] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Addr_St_Code] [nvarchar] (2) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Addr_Zip] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Addr_Prov] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Addr_Cnty_Code] [nvarchar] (3) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Addr_Cntry_Code] [nvarchar] (3) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NOT NULL ,
    [Date_Uploaded] [datetime] NULL
) ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[t_Contact] (
    [Change_ID] [int] IDENTITY (1, 1) NOT NULL ,
    [Cust_ID] [int] NOT NULL ,
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Cont_Name] [nvarchar] (45) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Cont_Job] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Cont_Email] [nvarchar] (45) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NOT NULL ,
    [Date_Uploaded] [datetime] NULL
) ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[t_Customer] (
    [Change_ID] [int] IDENTITY (1, 1) NOT NULL ,
    [Cust_ID] [int] NOT NULL ,
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Cust_Name] [nvarchar] (60) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Cust_Email] [nvarchar] (45) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NOT NULL ,
    [Date_Uploaded] [datetime] NULL
) ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[t_Phone] (
    [Change_ID] [int] IDENTITY (1, 1) NOT NULL ,
    [Cust_ID] [int] NOT NULL ,
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Phon_Loc_Id] [float] NOT NULL ,
    [Phon_AC] [nvarchar] (3) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Phon_Num] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Phon_Ext] [nvarchar] (4) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NOT NULL ,
    [Date_Uploaded] [datetime] NULL ,

```



```

    [upsized_ts] [timestamp] NULL
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tblActivityLog] (
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Rcvd_Date] [datetime] NULL ,
    [Effective_Date] [datetime] NULL ,
    [Entry_Date] [datetime] NULL ,
    [Change_Type] [smallint] NULL ,
    [Change_Note] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Date_Uploaded] [datetime] NULL
) ON [PRIMARY]

```

```
GO
```

```

CREATE TABLE [dbo].[tblBoilerWaterHtr] (
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [BlrWtrHtr_ID] [smallint] NOT NULL ,
    [BlrWtrHtr_Serial_No] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [BlrWtrHtr_Type] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [BlrWtrHtr_Deleted] [nvarchar] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [BlrWtrHtr_Rm_No] [nvarchar] (2) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [BlrWtrHtr_BTU_Hr] [int] NULL ,
    [BltWtrHtrHP] [smallint] NULL ,
    [BlrWtrHtr_MkAir] [int] NULL ,
    [BlrWtrHtr_MkAir_Location] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [BlrWtrHtr_Note] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Date_Uploaded] [datetime] NULL
) ON [PRIMARY]

```

```
GO
```

```

CREATE TABLE [dbo].[tblCities] (
    [City] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Source] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
) ON [PRIMARY]

```

```
GO
```

```

CREATE TABLE [dbo].[tblCodeTypes] (
    [Code_Type] [nvarchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Code_Type_Name] [nvarchar] (35) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NULL
) ON [PRIMARY]

```

```
GO
```

```

CREATE TABLE [dbo].[tblCorrActions] (
    [Corr_Action_ID] [int] IDENTITY (1, 1) NOT NULL ,
    [Rule_ID] [smallint] NOT NULL ,
    [Corr_Action] [ntext] COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]

```

```
GO
```

```

CREATE TABLE [dbo].[tblCounty] (
    [CtyCode] [nvarchar] (3) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [CtyName] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL
) ON [PRIMARY]

```

```
GO
```



```

CREATE TABLE [dbo].[tblDCDistrict] (
    [DC_District] [smallint] NOT NULL ,
    [Insp_Name] [nvarchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Dist_Name] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NULL
) ON [PRIMARY]
GO

CREATE TABLE [dbo].[tblDistrictCounty] (
    [Dist_Code] [nvarchar] (2) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Cnty_Code] [nvarchar] (3) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL
) ON [PRIMARY]
GO

CREATE TABLE [dbo].[tblEmail] (
    [MsgID] [int] IDENTITY (1, 1) NOT NULL ,
    [MsgAdmin] [bit] NOT NULL ,
    [MsgDate] [datetime] NULL ,
    [MsgFrom] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [MsgTo] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [MsgSubject] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [MsgBody] [ntext] COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [MsgRead] [bit] NOT NULL ,
    [Date_Uploaded] [datetime] NULL ,
    [Date_Read] [datetime] NULL ,
    [upsized_ts] [timestamp] NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

CREATE TABLE [dbo].[tblEstabFilter] (
    [Estab_No] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Estab_Name] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [From_Estab] [bit] NOT NULL ,
    [From_Addr] [bit] NOT NULL
) ON [PRIMARY]
GO

CREATE TABLE [dbo].[tblEstablishment] (
    [Cust_ID] [int] NULL ,
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Estab_Name] [nvarchar] (35) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Estab_Phone] [nvarchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [DC_District] [smallint] NULL ,
    [Cnty_Code] [nvarchar] (3) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [License_Num] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Last_LicYear] [nvarchar] (4) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [App_Status] [smallint] NULL ,
    [Last_App_LicNo] [int] NULL ,
    [Estab_Aprvd] [bit] NOT NULL ,
    [Estab_Type] [smallint] NULL ,
    [Mach_Type] [smallint] NULL ,
    [Duty_Manager] [nvarchar] (35) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Location_ID] [int] NULL ,
    [Mail_ID] [int] NULL ,
    [Owner_ID] [int] NULL ,
    [Fed_ID] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Last_Insp_Date] [datetime] NULL ,
    [Mail_To] [bit] NOT NULL ,
    [No_Machines] [smallint] NULL ,
    [Active_Mach] [smallint] NULL ,

```



```

[Active_Pounds] [smallint] NULL ,
[No_Dryers] [smallint] NULL ,
[Total_Owed] [money] NULL ,
[Total_Rcvd] [money] NULL ,
[No_Insp] [smallint] NULL ,
[Total_Population] [smallint] NULL ,
[Estab_Note] [ntext] COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Active_Ind] [bit] NOT NULL ,
[Inactive_Date] [datetime] NULL ,
[Date_Insp_Modified] [datetime] NULL ,
[Date_Uploaded] [datetime] NULL ,
[License_Status] [bit] NOT NULL ,
[Date_Modified] [datetime] NULL ,
[Date_NewOwner] [datetime] NULL ,
[Is_Deleted] [bit] NOT NULL ,
[upsized_ts] [timestamp] NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tblInspFindings] (
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Insp_Date] [datetime] NOT NULL ,
    [Insp_Area] [smallint] NOT NULL ,
    [Equip_ID] [smallint] NOT NULL ,
    [Rule_ID] [smallint] NOT NULL ,
    [Corr_Action] [ntext] COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Date_Uploaded] [datetime] NULL ,
    [upsized_ts] [timestamp] NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tblInspHeader] (
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Insp_Date] [datetime] NOT NULL ,
    [Estab_Name] [nvarchar] (35) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [DC_District] [smallint] NULL ,
    [Insp_TimeIn] [datetime] NULL ,
    [Insp_TimeOut] [datetime] NULL ,
    [Insp_Type] [smallint] NULL ,
    [Insp_Origin] [smallint] NULL ,
    [Insp_Contact] [smallint] NULL ,
    [Insp_Activity] [smallint] NULL ,
    [Insp_Findings] [smallint] NULL ,
    [Insp_Status] [smallint] NULL ,
    [FollowUp_Days] [smallint] NULL ,
    [Representative] [nvarchar] (35) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Monitoring_Test] [bit] NOT NULL ,
    [Sol_Inst_Used] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [CO_Inst_Used] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Sol_Inst_Unit_Meas] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [CO_Inst_Unit_Meas] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Insp_Completed] [bit] NOT NULL ,
    [Insp_CompDate] [datetime] NULL ,
    [Date_Uploaded] [datetime] NULL
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tblInspPointCodeTypes] (
    [Insp_Area] [nvarchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Insp_Point] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Value_Type] [nvarchar] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,

```



```

[Value_Format] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Inst_Used] [nvarchar] (3) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Unit_Meas] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Rev] [datetime] NULL
) ON [PRIMARY]
GO

CREATE TABLE [dbo].[tblInspPointCodes] (
    [Point_Key] [int] IDENTITY (1, 1) NOT NULL ,
    [Insp_Area] [nvarchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Insp_Point] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Point_Value] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [List_Order] [smallint] NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NULL
) ON [PRIMARY]
GO

CREATE TABLE [dbo].[tblInspTestResults] (
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Insp_Date] [datetime] NULL ,
    [Equip_ID] [smallint] NULL ,
    [Inst_Used] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Inst_Unit_Meas] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Insp_Area] [smallint] NULL ,
    [Insp_Point] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Point_Value] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Deficit_Flag] [bit] NOT NULL ,
    [NESHAP_Flag] [bit] NOT NULL ,
    [Point_Note] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Date_Uploaded] [datetime] NULL
) ON [PRIMARY]
GO

CREATE TABLE [dbo].[tblMachine] (
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Mach_ID] [smallint] NOT NULL ,
    [Mach_Serial_No] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Mach_Active] [bit] NOT NULL ,
    [Solvent_Type] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Mach_Type] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Mach_Make] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Mach_Model] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Mach_Size] [smallint] NULL ,
    [Mach_Install_Date] [nvarchar] (5) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Mach_Vented] [bit] NOT NULL ,
    [Control] [bit] NOT NULL ,
    [Control_Type] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Control_Inst_Date] [nvarchar] (5) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Contained] [bit] NOT NULL ,
    [Contain_Type] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Mach_Deleted] [nvarchar] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Mach_Notes] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Machine_Size] [smallint] NULL ,
    [Date_Uploaded] [datetime] NULL
) ON [PRIMARY]
GO

CREATE TABLE [dbo].[tblNESHAPHeader] (
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,

```



[Insp\_Date] [datetime] NOT NULL ,  
 [Insp\_Name] [nvarchar] (35) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [DC\_District] [nvarchar] (2) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Dist\_Name] [nvarchar] (20) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Cnty\_Code] [nvarchar] (3) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [County\_Name] [nvarchar] (20) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Comp\_Req\_No] [nvarchar] (15) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Estab\_Name] [nvarchar] (50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Estab\_Street] [nvarchar] (50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Estab\_City] [nvarchar] (20) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Estab\_State] [nvarchar] (2) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Estab\_Zip] [nvarchar] (10) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Estab\_Phone] [nvarchar] (15) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Representative] [nvarchar] (35) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Rep\_Title] [nvarchar] (20) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Perc\_Purch\_Yr1] [nvarchar] (15) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Perc\_Purch\_Yr2] [nvarchar] (15) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Perc\_Purch\_Yr3] [nvarchar] (15) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Perc\_Purch\_Yr1\_Amt] [smallint] NULL ,  
 [Perc\_Purch\_Yr2\_Amt] [smallint] NULL ,  
 [Perc\_Purch\_Yr3\_Amt] [smallint] NULL ,  
 [Ann\_Usage\_Rating] [nvarchar] (8) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Gen\_Maint\_Waste] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Gen\_Maint\_filters] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Gen\_Maint\_Doors] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Gen\_Maint\_Mach\_Oper] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Gen\_Maint\_Repairs] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Reckkeep\_Logged] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Reckkeep\_Perc\_Calc] [nvarchar] (50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Reckkeep\_Leaks] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Reckkeep\_Vent\_Control] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Reckkeep\_Repairs] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Reckkeep\_Machines] [nvarchar] (50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [NonVent\_Vapor] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [NonVent\_Oper\_Manual] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [NonVent\_Log] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [NonVent\_Concentration] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [NonVent\_Machines] [nvarchar] (50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [DrytoDry\_Vapor] [nvarchar] (50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [DrytoDry\_Concentration] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [DrytoDry\_Samp\_Port] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [DrytoDry\_Oper\_Manual] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [DrytoDry\_Log] [nvarchar] (50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [DrytoDry\_Machines] [nvarchar] (50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [WetWheel\_Vapor] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [WetWheel\_Guage\_Range] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [WetWheel\_Concentration] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [WetWheel\_Samp\_Port] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [WetWheel\_Oper\_Manual] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [WetWheel\_Log] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [WetWheel\_Neg\_Pressure] [nvarchar] (1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [WetWheel\_Machines] [nvarchar] (50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [NESHAP\_Findings] [ntext] COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL ,  
 [Insp\_Completed] [bit] NOT NULL ,  
 [Insp\_CompDate] [datetime] NULL ,

[Date\_Uploaded] [datetime] NULL ,  
 [upszie\_ts] [timestamp] NULL

) ON [PRIMARY] TEXTIMAGE\_ON [PRIMARY]

GO



```
CREATE TABLE [dbo].[tblNESHAPMachines] (
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Insp_Date] [datetime] NULL ,
    [Mach_ID] [int] IDENTITY (1, 1) NOT NULL ,
    [Mach_Type] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Mach_Make] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Mach_Install_Date] [nvarchar] (5) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Control_Type] [nvarchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Control_Inst_Date] [nvarchar] (5) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
) ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[tblRuleCategories] (
    [Cat_ID] [smallint] NOT NULL ,
    [Class] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Description] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NULL
) ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[tblRules] (
    [Rule_ID] [int] IDENTITY (1, 1) NOT NULL ,
    [Cat_ID] [smallint] NULL ,
    [Rule_No] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rule_Sect_No] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rule_Sub_Sect_No] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rule_Desc] [nvarchar] (150) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rule_Text] [ntext] COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Diagram] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NULL ,
    [upsized_ts] [timestamp] NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[tblVentilation] (
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Vent_ID] [smallint] NOT NULL ,
    [Vent_Deleted] [nvarchar] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Vent_Location] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Vent_Type] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Fan_Size] [int] NULL ,
    [MakeupAir_Location] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Vent_MkAir] [int] NULL ,
    [Vent_MkAir_Location_Aprvl] [bit] NOT NULL ,
    [Vent_Note] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Date_Uploaded] [datetime] NULL
) ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[tblZipCodes] (
    [ZipCode] [float] NULL ,
    [City] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [State] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
) ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[tbl_Activity_Log] (
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Rcvd_Date] [datetime] NULL ,
```



```

[Effective_Date] [datetime] NULL ,
[Entry_Date] [datetime] NULL ,
[Change_Type] [smallint] NULL ,
[Change_Note] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_Addresses] (
  [Add_Id] [smallint] NOT NULL ,
  [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
  [Add_Type] [smallint] NULL ,
  [Add_Name] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_Street1] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_Street2] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_City] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_State] [nvarchar] (2) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_Zip] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_Phone] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_Note] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Date_Insp_Modified] [datetime] NULL ,
  [Date_Uploaded] [datetime] NULL ,
  [Date_Modified] [datetime] NULL
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_Addresses_Changes] (
  [Add_Id] [smallint] NOT NULL ,
  [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
  [Add_Type] [smallint] NULL ,
  [Add_Name] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_Street1] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_Street2] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_City] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_State] [nvarchar] (2) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_Zip] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_Phone] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Add_Note] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Date_Insp_Modified] [datetime] NOT NULL ,
  [Date_Uploaded] [datetime] NULL ,
  [Date_Modified] [datetime] NULL
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_Admin_Codes] (
  [Code_Type] [nvarchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
  [Code_Value] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
  [Code] [smallint] NULL ,
  [List_Order] [smallint] NULL ,
  [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Rev] [datetime] NULL
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_Cash_Log] (
  [AutoNumber] [int] IDENTITY (1, 1) NOT NULL ,
  [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Check_No] [nvarchar] (8) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Check_Amt] [money] NULL ,
  [Validation_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
  [Validation_Date] [datetime] NULL ,
  [Fee_Year] [nvarchar] (4) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,

```



```

    [Fee_Code] [nvarchar] (5) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_Changes] (
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Insp_Date] [datetime] NULL ,
    [DC_District] [smallint] NULL ,
    [Change_Type] [smallint] NULL ,
    [Effective_Date] [nvarchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Change] [nvarchar] (100) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Change_Note] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Date_Uploaded] [datetime] NULL
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_Email_Changes] (
    [MsgID] [int] IDENTITY (1, 1) NOT NULL ,
    [MsgAdmin] [bit] NOT NULL ,
    [MsgDate] [datetime] NULL ,
    [MsgFrom] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [MsgTo] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [MsgSubject] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [MsgBody] [ntext] COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [MsgRead] [bit] NOT NULL ,
    [Date_Uploaded] [datetime] NULL ,
    [Date_Read] [datetime] NULL ,
    [upsized_ts] [timestamp] NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_Estab_Changes] (
    [Cust_ID] [int] NULL ,
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Estab_Name] [nvarchar] (35) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Estab_Phone] [nvarchar] (25) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [DC_District] [smallint] NOT NULL ,
    [Cnty_Code] [nvarchar] (3) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [License_Num] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Last_LicYear] [nvarchar] (4) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [App_Status] [smallint] NULL ,
    [Last_App_LicNo] [int] NULL ,
    [Estab_Aprvd] [bit] NOT NULL ,
    [Estab_Type] [smallint] NULL ,
    [Mach_Type] [smallint] NULL ,
    [Duty_Manager] [nvarchar] (35) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Location_ID] [int] NULL ,
    [Mail_ID] [int] NULL ,
    [Owner_ID] [int] NULL ,
    [Fed_ID] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Last_Insp_Date] [datetime] NULL ,
    [Mail_To] [bit] NOT NULL ,
    [No_Machines] [smallint] NULL ,
    [Active_Mach] [smallint] NULL ,
    [Active_Pounds] [smallint] NULL ,
    [No_Dryers] [smallint] NULL ,
    [Total_Owed] [money] NULL ,
    [Total_Rcvd] [money] NULL ,
    [No_Insp] [smallint] NULL ,
    [Total_Population] [smallint] NULL ,
    [Estab_Note] [ntext] COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,

```



```

[Active_Ind] [bit] NOT NULL ,
[Inactive_Date] [datetime] NULL ,
[Date_Insp_Modified] [datetime] NOT NULL ,
[Date_Uploaded] [datetime] NULL ,
[License_Status] [bit] NOT NULL ,
[Date_Modified] [datetime] NULL ,
[Date_NewOwner] [datetime] NULL ,
[Is_Deleted] [bit] NOT NULL ,
[upsized_ts] [timestamp] NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_InspAddresses] (
[Add_Id] [smallint] NOT NULL ,
[Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Insp_Date] [datetime] NULL ,
[Add_Type] [smallint] NULL ,
[Add_Name] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Add_Street1] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Add_Street2] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Add_City] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Add_State] [nvarchar] (2) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Add_Zip] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Add_Phone] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Add_Note] [nvarchar] (255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Upload_Date] [datetime] NULL
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_Insp_Report] (
[Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
[Insp_Date] [datetime] NOT NULL ,
[Estab_Name] [nvarchar] (35) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[DC_District_Text] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Insp_Type_Code] [smallint] NULL ,
[Insp_Type_Text] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Insp_Contact_Code] [smallint] NULL ,
[Insp_Contact_Text] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Insp_Findings_Code] [smallint] NULL ,
[Insp_Findings_Text] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Estab_Type_Text] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[County_Name] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Origin_Text] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Activity_Text] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[SOL_Inst_Text] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[SOL_Inst_UOM] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[CO_Inst_Text] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[CO_Inst_UOM] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Status_Text] [nvarchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Representative] [nvarchar] (35) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Owner_Name] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Deficit_Flag] [bit] NOT NULL ,
[NESHAP_Flag] [bit] NOT NULL ,
[Insp_Deficiencies] [ntext] COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[upsized_ts] [timestamp] NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_Licenses] (
[AutoNumber] [int] IDENTITY (1, 1) NOT NULL ,
[Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,

```



```

[License_No] [int] NULL ,
[App_Status] [smallint] NULL ,
[Active_Machines] [smallint] NULL ,
[Active_Pounds] [smallint] NULL ,
[Base_Fee] [money] NULL ,
[Pound_Fee] [money] NULL ,
[Add_Mach_Fee] [money] NULL ,
[Total_Fee] [money] NULL ,
[Tot_Rcvd] [money] NULL ,
[Prev_Bal] [money] NULL ,
[Bal_Due] [money] NULL ,
[Print_Date] [datetime] NULL ,
[ToBe_Printed] [nvarchar] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Spec_Cond1] [bit] NOT NULL ,
[Spec_Cond2] [bit] NOT NULL ,
[Spec_Conds] [ntext] COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Are_Spec_Conds] [bit] NOT NULL ,
[Lic_Year] [nvarchar] (4) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Last_Update] [datetime] NULL ,
[upsized_ts] [timestamp] NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_LoadEnvIntAffiliation] (
    [EnvIntTypeCode] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [EnvIntFacPKID] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [AffiltypeCode] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [EntityTypeCode] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [EntityName] [varchar] (80) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [EntityTitle] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [DUNSNumb] [varchar] (9) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Phone] [varchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [PhoneExt] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [AddressLine1] [varchar] (100) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [AddressLine2] [varchar] (100) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [City] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [State] [varchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [ZipCode] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Country] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_LoadEnvIntAlias] (
    [EnvIntTypeCode] [nvarchar] (10) COLLATE SQL_Latin1_General_Pref_CP437_CI_AS NOT NULL ,
    [EnvIntFacPKID] [nvarchar] (10) COLLATE SQL_Latin1_General_Pref_CP437_CI_AS NOT NULL ,
    [AliasName] [nvarchar] (80) COLLATE SQL_Latin1_General_Pref_CP437_CI_AS NULL
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_LoadEnvIntAliasID] (
    [EnvIntTypeCode] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [EnvIntFacPKID] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [AliasIDTypeCode] [varchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [AliasID] [varchar] (20) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
) ON [PRIMARY]
GO

```

```

CREATE TABLE [dbo].[tbl_LoadEnvIntFacility] (
    [EnvIntTypeCode] [nvarchar] (3) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [EnvIntFacPKID] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,

```



```

[EPAFacID] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[FacName] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[AddressLine1] [nvarchar] (80) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[AddressLine2] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[City] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[FullZipCode] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[LatDecimal] [float] NULL ,
[LongDecimal] [float] NULL ,
[TRSTown] [nvarchar] (100) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[TRSRange] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[TRSSec] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[UTMZone] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[UTMEasting] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[UTMNorthing] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[HorizColMthdTypeCode] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[RefPointTypeCode] [nvarchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[EnvintStartDate] [datetime] NULL ,
[EnvintEndDate] [datetime] NULL
) ON [PRIMARY]
GO

CREATE TABLE [dbo].[tbl_LoadEnvIntSIC] (
    [EnvIntTypeCode] [nvarchar] (10) COLLATE SQL_Latin1_General_Pref_CP437_CI_AS NOT NULL ,
    [EnvIntFacPKID] [nvarchar] (10) COLLATE SQL_Latin1_General_Pref_CP437_CI_AS NOT NULL ,
    [SICCode] [nvarchar] (10) COLLATE SQL_Latin1_General_Pref_CP437_CI_AS NULL
) ON [PRIMARY]
GO

CREATE TABLE [dbo].[tbl_Makes] (
    [Equip_Type] [nvarchar] (2) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Equip_Make] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [List_Order] [smallint] NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NULL
) ON [PRIMARY]
GO

CREATE TABLE [dbo].[tbl_Models] (
    [Equip_Type] [nvarchar] (2) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Equip_Make] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Equip_Model] [nvarchar] (15) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [List_Order] [smallint] NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NULL
) ON [PRIMARY]
GO

CREATE TABLE [dbo].[tbl_Program_Control] (
    [Sect_lk] [smallint] NOT NULL ,
    [Unit_lk] [smallint] NOT NULL ,
    [Prog_Code] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [Prog_Name] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Estab_No] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [License_Num] [int] IDENTITY (1, 1) NOT NULL ,
    [Leg_Authority] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Prog_Fine] [money] NULL ,
    [Contact_Name] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Contact_Phone] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Contact_Email] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Remit_Name] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Remit_Address1] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,

```



```
[Remit_Address2] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Remit_City] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Remit_State] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Remit_Zip] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Rev_By] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
[Rev] [datetime] NULL
```

```
) ON [PRIMARY]
```

```
GO
```

```
CREATE TABLE [dbo].[tbl_Solvent_Fees] (
    [Solvent_Type] [nvarchar] (1) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL ,
    [License_year] [nvarchar] (4) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Perc_Plant_Fee] [money] NULL ,
    [Perc_Lbs_Fee] [money] NULL ,
    [Petro_Per_Mach_Fee] [money] NULL ,
    [Petro_Add_Mach] [money] NULL ,
    [Due_Date] [datetime] NULL ,
    [Rev_By] [nvarchar] (30) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Rev] [datetime] NULL
```

```
) ON [PRIMARY]
```

```
GO
```

```
CREATE TABLE [dbo].[tbl_Transact] (
    [AutoNumber] [int] IDENTITY (1, 1) NOT NULL ,
    [Estab_No] [nvarchar] (10) COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [Effective_Date] [datetime] NULL ,
    [Entry_Date] [datetime] NULL ,
    [Trans_Type] [smallint] NULL ,
    [Comment] [ntext] COLLATE SQL_Latin1_General_CP1_CI_AS NULL ,
    [upsized_ts] [timestamp] NULL
```

```
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
```

```
GO
```

```
ALTER TABLE [dbo].[t_Address] WITH NOCHECK ADD
    CONSTRAINT [aaaaat_Address_PK] PRIMARY KEY NONCLUSTERED
```

```
(
    [Change_ID]
) ON [PRIMARY]
```

```
GO
```

```
CREATE INDEX [Change_ID] ON [dbo].[t_Address]([Change_ID]) ON [PRIMARY]
```

```
GO
```

```
ALTER TABLE [dbo].[t_Contact] WITH NOCHECK ADD
    CONSTRAINT [aaaaat_Contact_PK] PRIMARY KEY NONCLUSTERED
```

```
(
    [Change_ID]
) ON [PRIMARY]
```

```
GO
```

```
CREATE INDEX [Change_ID] ON [dbo].[t_Contact]([Change_ID]) ON [PRIMARY]
```

```
GO
```

```
ALTER TABLE [dbo].[t_Customer] WITH NOCHECK ADD
    CONSTRAINT [aaaaat_Customer_PK] PRIMARY KEY NONCLUSTERED
```

```
(
    [Change_ID]
) ON [PRIMARY]
```

```
GO
```



```
CREATE INDEX [Change_ID] ON [dbo].[t_Customer]([Change_ID]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[t_Phone] WITH NOCHECK ADD
    CONSTRAINT [aaaaat_Phone_PK] PRIMARY KEY NONCLUSTERED
    (
        [Change_ID]
    ) ON [PRIMARY]
GO
```

```
CREATE INDEX [Change_ID] ON [dbo].[t_Phone]([Change_ID]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblActivityLog] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Chang__6E96540A] DEFAULT (0) FOR [Change_Type],
    CONSTRAINT [aaaaatblActivityLog_PK] PRIMARY KEY NONCLUSTERED
    (
        [Estab_No]
    ) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblBoilerWaterHtr] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__BlrWt__735B0927] DEFAULT (0) FOR [BlrWtrHtr_ID],
    CONSTRAINT [DF__Temporary__BlrWt__744F2D60] DEFAULT (0) FOR [BlrWtrHtr_BTU_Hr],
    CONSTRAINT [DF__Temporary__BltWt__75435199] DEFAULT (0) FOR [BltWtrHtrHP],
    CONSTRAINT [DF__Temporary__BlrWt__763775D2] DEFAULT (0) FOR [BlrWtrHtr_MkAir],
    CONSTRAINT [aaaaatblBoilerWaterHtr_PK] PRIMARY KEY NONCLUSTERED
    (
        [Estab_No],
        [BlrWtrHtr_ID]
    ) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblCodeTypes] WITH NOCHECK ADD
    CONSTRAINT [aaaaatblCodeTypes_PK] PRIMARY KEY NONCLUSTERED
    (
        [Code_Type]
    ) ON [PRIMARY]
GO
```

```
CREATE INDEX [Code_Type] ON [dbo].[tblCodeTypes]([Code_Type]) ON [PRIMARY]
GO
```

```
CREATE INDEX [Code_Type_Name] ON [dbo].[tblCodeTypes]([Code_Type_Name]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblCorrActions] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Rule___7D197D8B] DEFAULT (0) FOR [Rule_ID]
GO
```

```
CREATE INDEX [Corr_Action_ID] ON [dbo].[tblCorrActions]([Corr_Action_ID]) ON [PRIMARY]
GO
```

```
CREATE INDEX [Rule_ID] ON [dbo].[tblCorrActions]([Rule_ID]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblCounty] WITH NOCHECK ADD
    CONSTRAINT [aaaaatblCounty_PK] PRIMARY KEY NONCLUSTERED
    (
        [CtyCode]
    ) ON [PRIMARY]
```

GO

```
CREATE UNIQUE INDEX [CountyNum] ON [dbo].[tblCounty]([CtyCode]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblDCDistrict] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__DC_Di__4999D985] DEFAULT (0) FOR [DC_District],
    CONSTRAINT [aaaaatblDCDistrict_PK] PRIMARY KEY NONCLUSTERED
(
    [DC_District]
) ON [PRIMARY]
```

GO

```
CREATE INDEX [tblDistrictCountyCnty_Code] ON [dbo].[tblDistrictCounty]([Cnty_Code]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblEMail] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__MsgAd__6541F3FA] DEFAULT (0) FOR [MsgAdmin],
    CONSTRAINT [DF__Temporary__MsgRe__66361833] DEFAULT (0) FOR [MsgRead],
    CONSTRAINT [aaaaatblEMail_PK] PRIMARY KEY NONCLUSTERED
(
    [MsgID]
) ON [PRIMARY]
```

GO

```
ALTER TABLE [dbo].[tblEstabFilter] WITH NOCHECK ADD
    CONSTRAINT [DF__tblEstabFilter_From_Estab] DEFAULT (0) FOR [From_Estab],
    CONSTRAINT [DF__tblEstabFilter_From_Addr] DEFAULT (0) FOR [From_Addr],
    CONSTRAINT [aaaaatblEstabFilter_PK] PRIMARY KEY NONCLUSTERED
(
    [Estab_No]
) ON [PRIMARY]
```

GO

```
ALTER TABLE [dbo].[tblEstablishment] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Cust__73B00EE2] DEFAULT (0) FOR [Cust_ID],
    CONSTRAINT [DF__Temporary__DC_Di__74A4331B] DEFAULT (0) FOR [DC_District],
    CONSTRAINT [DF__Temporary__Estab__75985754] DEFAULT (0) FOR [Estab_Aprvd],
    CONSTRAINT [DF__Temporary__Estab__768C7B8D] DEFAULT (0) FOR [Estab_Type],
    CONSTRAINT [DF__Temporary__Mach__77809FC6] DEFAULT (0) FOR [Mach_Type],
    CONSTRAINT [DF__Temporary__Locat__7874C3FF] DEFAULT (0) FOR [Location_ID],
    CONSTRAINT [DF__Temporary__Mail__7968E838] DEFAULT (0) FOR [Mail_ID],
    CONSTRAINT [DF__Temporary__Owner__7A5D0C71] DEFAULT (0) FOR [Owner_ID],
    CONSTRAINT [DF__Temporary__Mail__7B5130AA] DEFAULT (0) FOR [Mail_To],
    CONSTRAINT [DF__Temporary__No_Ma__7C4554E3] DEFAULT (0) FOR [No_Machines],
    CONSTRAINT [DF__Temporary__Activ__7D39791C] DEFAULT (0) FOR [Active_Mach],
    CONSTRAINT [DF__Temporary__Activ__7E2D9D55] DEFAULT (0) FOR [Active_Pounds],
    CONSTRAINT [DF__Temporary__No_Dr__7F21C18E] DEFAULT (0) FOR [No_Dryers],
    CONSTRAINT [DF__Temporary__No_In__0015E5C7] DEFAULT (0) FOR [No_Insp],
    CONSTRAINT [DF__Temporary__Total__010A0A00] DEFAULT (0) FOR [Total_Population],
    CONSTRAINT [DF__Temporary__Activ__01FE2E39] DEFAULT (0) FOR [Active_Ind],
    CONSTRAINT [DF__Temporary__Licen__02F25272] DEFAULT (0) FOR [License_Status],
    CONSTRAINT [DF__Temporary__Is_De__03E676AB] DEFAULT (0) FOR [Is_Deleted],
    CONSTRAINT [aaaaatblEstablishment1_PK] PRIMARY KEY NONCLUSTERED
(
    [Estab_No]
) WITH FILLFACTOR = 90 ON [PRIMARY]
```

GO

```
CREATE UNIQUE INDEX [Address_ID] ON [dbo].[tblEstablishment]([Estab_No], [Location_ID]) WITH FILLFACTOR = 90
ON [PRIMARY]
```



GO

```
CREATE INDEX [Cust_ID] ON [dbo].[tblEstablishment]([Cust_ID]) WITH FILLFACTOR = 90 ON [PRIMARY]
GO
```

```
CREATE INDEX [Location_ID] ON [dbo].[tblEstablishment]([Location_ID]) WITH FILLFACTOR = 90 ON [PRIMARY]
GO
```

```
CREATE INDEX [Mailing_ID] ON [dbo].[tblEstablishment]([Estab_No], [Mail_ID]) WITH FILLFACTOR = 90 ON [PRIMARY]
GO
```

```
CREATE INDEX [tbl_EstablishmentDC_District] ON [dbo].[tblEstablishment]([DC_District]) WITH FILLFACTOR = 90 ON [PRIMARY]
GO
```

```
CREATE INDEX [tblEstablishmentCnty_Code] ON [dbo].[tblEstablishment]([Cnty_Code]) WITH FILLFACTOR = 90 ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblInspFindings] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Insp__7AFC2AEF] DEFAULT (0) FOR [Insp_Area],
    CONSTRAINT [DF__Temporary__Equip__7BF04F28] DEFAULT (0) FOR [Equip_ID],
    CONSTRAINT [DF__Temporary__Rule__7CE47361] DEFAULT (0) FOR [Rule_ID],
    CONSTRAINT [aaaaatblInspFindings_PK] PRIMARY KEY NONCLUSTERED
(
    [Estab_No],
    [Insp_Date],
    [Insp_Area],
    [Equip_ID],
    [Rule_ID]
) ON [PRIMARY]
```

GO

```
CREATE INDEX [Estab_No] ON [dbo].[tblInspFindings]([Estab_No]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblInspHeader] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__DC_Di__01A9287E] DEFAULT (0) FOR [DC_District],
    CONSTRAINT [DF__Temporary__Insp__029D4CB7] DEFAULT (0) FOR [Insp_Type],
    CONSTRAINT [DF__Temporary__Insp__039170F0] DEFAULT (0) FOR [Insp_Origin],
    CONSTRAINT [DF__Temporary__Insp__04859529] DEFAULT (0) FOR [Insp_Contact],
    CONSTRAINT [DF__Temporary__Insp__0579B962] DEFAULT (0) FOR [Insp_Activity],
    CONSTRAINT [DF__Temporary__Insp__066DDD9B] DEFAULT (0) FOR [Insp_Findings],
    CONSTRAINT [DF__Temporary__Insp__076201D4] DEFAULT (0) FOR [Insp_Status],
    CONSTRAINT [DF__Temporary__Follo__0856260D] DEFAULT (0) FOR [FollowUp_Days],
    CONSTRAINT [DF__Temporary__Monit__094A4A46] DEFAULT (0) FOR [Monitoring_Test],
    CONSTRAINT [DF__Temporary__Insp__0A3E6E7F] DEFAULT (0) FOR [Insp_Completed],
    CONSTRAINT [aaaaatblInspHeader_PK] PRIMARY KEY NONCLUSTERED
(
    [Estab_No],
    [Insp_Date]
) ON [PRIMARY]
```

GO

```
ALTER TABLE [dbo].[tblInspPointCodeTypes] WITH NOCHECK ADD
    CONSTRAINT [aaaaatblInspPointCodeTypes_PK] PRIMARY KEY NONCLUSTERED
(
    [Insp_Point]
) ON [PRIMARY]
```

GO



```
CREATE INDEX [Insp_Area] ON [dbo].[tblInspPointCodeTypes]([Insp_Area]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblInspPointCodes] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__List__70B3A6A6] DEFAULT (0) FOR [List_Order],
    CONSTRAINT [aaaaatblInspPointCodes_PK] PRIMARY KEY NONCLUSTERED
(
    [Point_Key]
) ON [PRIMARY]
GO
```

```
CREATE INDEX [Point_Key] ON [dbo].[tblInspPointCodes]([Point_Key]) ON [PRIMARY]
GO
```

```
CREATE INDEX [tblInspPointCodesInsp_Area] ON [dbo].[tblInspPointCodes]([Insp_Area]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblInspTestResults] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Equip__0E0EFF63] DEFAULT (0) FOR [Equip_ID],
    CONSTRAINT [DF__Temporary__Insp__0F03239C] DEFAULT (0) FOR [Insp_Area],
    CONSTRAINT [DF__Temporary__Defic__0FF747D5] DEFAULT (0) FOR [Deficit_Flag],
    CONSTRAINT [DF__Temporary__NESHAP__10EB6C0E] DEFAULT (0) FOR [NESHAP_Flag]
GO
```

```
CREATE INDEX [Inspect] ON [dbo].[tblInspTestResults]([Estab_No], [Insp_Date]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblMachine] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Mach__15B0212B] DEFAULT (0) FOR [Mach_Active],
    CONSTRAINT [DF__Temporary__Mach__16A44564] DEFAULT (0) FOR [Mach_Vented],
    CONSTRAINT [DF__Temporary__Contr__1798699D] DEFAULT (0) FOR [Control],
    CONSTRAINT [DF__Temporary__Conta__188C8DD6] DEFAULT (0) FOR [Contained],
    CONSTRAINT [DF__Temporary__Machi__1980B20F] DEFAULT (0) FOR [Machine_Size],
    CONSTRAINT [aaaaatblMachine_PK] PRIMARY KEY NONCLUSTERED
(
    [Estab_No],
    [Mach_ID]
) ON [PRIMARY]
GO
```

```
CREATE INDEX [Estab_No] ON [dbo].[tblMachine]([Estab_No]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblNESHAPHeader] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Perc__1E45672C] DEFAULT (0) FOR [Perc_Purch_Yr1_Amt],
    CONSTRAINT [DF__Temporary__Perc__1F398B65] DEFAULT (0) FOR [Perc_Purch_Yr2_Amt],
    CONSTRAINT [DF__Temporary__Perc__202DAF9E] DEFAULT (0) FOR [Perc_Purch_Yr3_Amt],
    CONSTRAINT [DF__Temporary__Insp__2121D3D7] DEFAULT (0) FOR [Insp_Completed],
    CONSTRAINT [aaaaatblNESHAPHeader_PK] PRIMARY KEY NONCLUSTERED
(
    [Estab_No],
    [Insp_Date]
) ON [PRIMARY]
GO
```

```
CREATE INDEX [Estab_No] ON [dbo].[tblNESHAPHeader]([Estab_No]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tblNESHAPMachines] WITH NOCHECK ADD
    CONSTRAINT [aaaaatblNESHAPMachines_PK] PRIMARY KEY NONCLUSTERED
(
```



```

        [Estab_No]
    ) ON [PRIMARY]
GO

ALTER TABLE [dbo].[tblRuleCategories] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Cat_I__7948ECA7] DEFAULT (0) FOR [Cat_ID],
    CONSTRAINT [aaaaatblRuleCategories_PK] PRIMARY KEY NONCLUSTERED
    (
        [Cat_ID],
        [Class]
    ) ON [PRIMARY]
GO

CREATE INDEX [Cat_ID] ON [dbo].[tblRuleCategories]([Cat_ID]) ON [PRIMARY]
GO

ALTER TABLE [dbo].[tblRules] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Cat_I__44D52468] DEFAULT (0) FOR [Cat_ID],
    CONSTRAINT [aaaaatblRules_PK] PRIMARY KEY NONCLUSTERED
    (
        [Rule_ID]
    ) ON [PRIMARY]
GO

CREATE UNIQUE INDEX [tblRulesCat_ID] ON [dbo].[tblRules]([Cat_ID], [Rule_No], [Rule_Sect_No], [Rule_Sub_Sect_No])
ON [PRIMARY]
GO

CREATE INDEX [tblRulesCat_ID1] ON [dbo].[tblRules]([Cat_ID]) ON [PRIMARY]
GO

ALTER TABLE [dbo].[tblVentilation] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Vent__29B719D8] DEFAULT (0) FOR [Vent_ID],
    CONSTRAINT [DF__Temporary__Fan_S__2AAB3E11] DEFAULT (0) FOR [Fan_Size],
    CONSTRAINT [DF__Temporary__Vent__2B9F624A] DEFAULT (0) FOR [Vent_MkAir],
    CONSTRAINT [DF__Temporary__Vent__2C938683] DEFAULT (0) FOR [Vent_MkAir_Location_Aprvl],
    CONSTRAINT [aaaaatblVentilation_PK] PRIMARY KEY NONCLUSTERED
    (
        [Estab_No],
        [Vent_ID]
    ) ON [PRIMARY]
GO

CREATE INDEX [ZipCode] ON [dbo].[tblZipCodes]([ZipCode]) ON [PRIMARY]
GO

ALTER TABLE [dbo].[tbl_Activity_Log] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Chang__011F1899] DEFAULT (0) FOR [Change_Type],
    CONSTRAINT [aaaaatbl_Activity_Log1_PK] PRIMARY KEY NONCLUSTERED
    (
        [Estab_No]
    ) ON [PRIMARY]
GO

ALTER TABLE [dbo].[tbl_Addresses] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Add_I__6AFACD50] DEFAULT (0) FOR [Add_Id],
    CONSTRAINT [DF__Temporary__Add_T__6BEEF189] DEFAULT (0) FOR [Add_Type],
    CONSTRAINT [aaaaatbl_Addresses_PK] PRIMARY KEY NONCLUSTERED
    (
        [Add_Id],
        [Estab_No]
    )

```



```
) ON [PRIMARY]
```

```
GO
```

```
CREATE INDEX [Estab_Type] ON [dbo].[tbl_Addresses]([Estab_No], [Add_Id]) ON [PRIMARY]
```

```
GO
```

```
CREATE INDEX [tbl_AddressesEstab_No] ON [dbo].[tbl_Addresses]([Estab_No]) ON [PRIMARY]
```

```
GO
```

```
ALTER TABLE [dbo].[tbl_Addresses_Changes] WITH NOCHECK ADD
```

```
CONSTRAINT [DF__Temporary__Add_I__09B45E9A] DEFAULT (0) FOR [Add_Id],
CONSTRAINT [DF__Temporary__Add_T__0AA882D3] DEFAULT (0) FOR [Add_Type],
CONSTRAINT [aaaaatbl_Addresses_Changes_PK] PRIMARY KEY NONCLUSTERED
```

```
(
    [Add_Id],
    [Estab_No],
    [Date_Insp_Modified]
```

```
) ON [PRIMARY]
```

```
GO
```

```
CREATE INDEX [Estab_Type] ON [dbo].[tbl_Addresses_Changes]([Estab_No], [Add_Type]) ON [PRIMARY]
```

```
GO
```

```
ALTER TABLE [dbo].[tbl_Admin_Codes] WITH NOCHECK ADD
```

```
CONSTRAINT [DF__TemporaryU__Code__0F6D37F0] DEFAULT (0) FOR [Code],
CONSTRAINT [DF__Temporary__List__10615C29] DEFAULT (0) FOR [List_Order],
CONSTRAINT [aaaaatbl_Admin_Codes_PK] PRIMARY KEY NONCLUSTERED
```

```
(
    [Code_Type],
    [Code_Value]
```

```
) ON [PRIMARY]
```

```
GO
```

```
CREATE INDEX [Code1] ON [dbo].[tbl_Admin_Codes]([Code]) ON [PRIMARY]
```

```
GO
```

```
ALTER TABLE [dbo].[tbl_Cash_Log] WITH NOCHECK ADD
```

```
CONSTRAINT [DF__Temporary__Check__5AE46118] DEFAULT (0) FOR [Check_Amt],
CONSTRAINT [aaaaatbl_Cash_Log_PK] PRIMARY KEY NONCLUSTERED
```

```
(
    [AutoNumber]
```

```
) ON [PRIMARY]
```

```
GO
```

```
CREATE INDEX [Estab_No] ON [dbo].[tbl_Cash_Log]([Estab_No]) ON [PRIMARY]
```

```
GO
```

```
ALTER TABLE [dbo].[tbl_Changes] WITH NOCHECK ADD
```

```
CONSTRAINT [DF__Temporary__DC_Di__1BF30A66] DEFAULT (0) FOR [DC_District],
CONSTRAINT [DF__Temporary__Chang__1CE72E9F] DEFAULT (0) FOR [Change_Type]
```

```
GO
```

```
CREATE INDEX [Estab_No] ON [dbo].[tbl_Changes]([Estab_No]) ON [PRIMARY]
```

```
GO
```

```
ALTER TABLE [dbo].[tbl_Email_Changes] WITH NOCHECK ADD
```

```
CONSTRAINT [DF__Temporary__MsgAd__19EAC663] DEFAULT (0) FOR [MsgAdmin],
CONSTRAINT [DF__Temporary__MsgRe__1ADEEA9C] DEFAULT (0) FOR [MsgRead],
CONSTRAINT [aaaaatbl_Email_Changes_PK] PRIMARY KEY NONCLUSTERED
```

```
(
    [MsgID]
```



) ON [PRIMARY]

GO

```
ALTER TABLE [dbo].[tbl_Estab_Changes] WITH NOCHECK ADD
  CONSTRAINT [DF__Temporary__Cust__1FA39FB9] DEFAULT (0) FOR [Cust_ID],
  CONSTRAINT [DF__Temporary__DC_Di__2097C3F2] DEFAULT (0) FOR [DC_District],
  CONSTRAINT [DF__Temporary__Estab__218BE82B] DEFAULT (0) FOR [Estab_Aprvd],
  CONSTRAINT [DF__Temporary__Estab__22800C64] DEFAULT (0) FOR [Estab_Type],
  CONSTRAINT [DF__Temporary__Mach__2374309D] DEFAULT (0) FOR [Mach_Type],
  CONSTRAINT [DF__Temporary__Locat__246854D6] DEFAULT (0) FOR [Location_ID],
  CONSTRAINT [DF__Temporary__Mail__255C790F] DEFAULT (0) FOR [Mail_ID],
  CONSTRAINT [DF__Temporary__Owner__26509D48] DEFAULT (0) FOR [Owner_ID],
  CONSTRAINT [DF__Temporary__Mail__2744C181] DEFAULT (0) FOR [Mail_To],
  CONSTRAINT [DF__Temporary__No_Ma__2838E5BA] DEFAULT (0) FOR [No_Machines],
  CONSTRAINT [DF__Temporary__Activ__292D09F3] DEFAULT (0) FOR [Active_Mach],
  CONSTRAINT [DF__Temporary__Activ__2A212E2C] DEFAULT (0) FOR [Active_Pounds],
  CONSTRAINT [DF__Temporary__No_Dr__2B155265] DEFAULT (0) FOR [No_Dryers],
  CONSTRAINT [DF__Temporary__No_In__2C09769E] DEFAULT (0) FOR [No_Insp],
  CONSTRAINT [DF__Temporary__Total__2CFD9AD7] DEFAULT (0) FOR [Total_Population],
  CONSTRAINT [DF__Temporary__Activ__2DF1BF10] DEFAULT (0) FOR [Active_Ind],
  CONSTRAINT [DF__Temporary__Licen__2EE5E349] DEFAULT (0) FOR [License_Status],
  CONSTRAINT [DF__Temporary__Is_De__2FDA0782] DEFAULT (0) FOR [Is_Deleted],
  CONSTRAINT [aaaaatbl_Estab_Changes_PK] PRIMARY KEY NONCLUSTERED
(
  [Estab_No],
  [DC_District],
  [Date_Insp_Modified]
) WITH FILLFACTOR = 90 ON [PRIMARY]
```

GO

```
CREATE INDEX [Cust_ID] ON [dbo].[tbl_Estab_Changes]([Cust_ID]) WITH FILLFACTOR = 90 ON [PRIMARY]
```

GO

```
CREATE INDEX [Location_ID] ON [dbo].[tbl_Estab_Changes]([Location_ID]) WITH FILLFACTOR = 90 ON [PRIMARY]
```

GO

```
ALTER TABLE [dbo].[tbl_InspAddresses] WITH NOCHECK ADD
  CONSTRAINT [DF__Temporary__Add_I__68DD7AB4] DEFAULT (0) FOR [Add_Id],
  CONSTRAINT [DF__Temporary__Add_T__69D19EED] DEFAULT (0) FOR [Add_Type],
  CONSTRAINT [aaaaatbl_InspAddresses_PK] PRIMARY KEY NONCLUSTERED
(
  [Add_Id]
) ON [PRIMARY]
```

GO

```
CREATE INDEX [Estab_Type] ON [dbo].[tbl_InspAddresses]([Estab_No], [Add_Type]) ON [PRIMARY]
```

GO

```
ALTER TABLE [dbo].[tbl_Insp_Report] WITH NOCHECK ADD
  CONSTRAINT [DF__Temporary__Insp__382534C0] DEFAULT (0) FOR [Insp_Type_Code],
  CONSTRAINT [DF__Temporary__Insp__391958F9] DEFAULT (0) FOR [Insp_Contact_Code],
  CONSTRAINT [DF__Temporary__Insp__3A0D7D32] DEFAULT (0) FOR [Insp_Findings_Code],
  CONSTRAINT [DF__Temporary__Defic__3B01A16B] DEFAULT (0) FOR [Deficit_Flag],
  CONSTRAINT [DF__Temporary__NESHAP__3BF5C5A4] DEFAULT (0) FOR [NESHAP_Flag],
  CONSTRAINT [aaaaatbl_Insp_Report_PK] PRIMARY KEY NONCLUSTERED
(
  [Estab_No],
  [Insp_Date]
) ON [PRIMARY]
```

GO



```
CREATE INDEX [Insp_Contact_Code] ON [dbo].[tbl_Insp_Report]([Insp_Contact_Code]) ON [PRIMARY]
GO
```

```
CREATE INDEX [Insp_Findings_Code] ON [dbo].[tbl_Insp_Report]([Insp_Findings_Code]) ON [PRIMARY]
GO
```

```
CREATE INDEX [Insp_Type_Code] ON [dbo].[tbl_Insp_Report]([Insp_Type_Code]) ON [PRIMARY]
```

```
GO
```

```
ALTER TABLE [dbo].[tbl_Licenses] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__App_S__11FF8BD8] DEFAULT (0) FOR [App_Status],
    CONSTRAINT [DF__Temporary__Activ__12F3B011] DEFAULT (0) FOR [Active_Machines],
    CONSTRAINT [DF__Temporary__Activ__13E7D44A] DEFAULT (0) FOR [Active_Pounds],
    CONSTRAINT [DF__Temporary__Base__14DBF883] DEFAULT (0) FOR [Base_Fee],
    CONSTRAINT [DF__Temporary__Pound__15D01CBC] DEFAULT (0) FOR [Pound_Fee],
    CONSTRAINT [DF__Temporary__Add_M__16C440F5] DEFAULT (0) FOR [Add_Mach_Fee],
    CONSTRAINT [DF__Temporary__Total__17B8652E] DEFAULT (0) FOR [Total_Fee],
    CONSTRAINT [DF__Temporary__Tot_R__18AC8967] DEFAULT (0) FOR [Tot_Rcvd],
    CONSTRAINT [DF__Temporary__Prev__19A0ADA0] DEFAULT (0) FOR [Prev_Bal],
    CONSTRAINT [DF__Temporary__Bal_D__1A94D1D9] DEFAULT (0) FOR [Bal_Due],
    CONSTRAINT [DF__Temporary__Spec__1B88F612] DEFAULT (0) FOR [Spec_Cond1],
    CONSTRAINT [DF__Temporary__Spec__1C7D1A4B] DEFAULT (0) FOR [Spec_Cond2],
    CONSTRAINT [DF__Temporary__Are_S__1D713E84] DEFAULT (0) FOR [Are_Spec_Conds],
    CONSTRAINT [aaaaatbl_Licenses_PK] PRIMARY KEY NONCLUSTERED
(
    [AutoNumber]
) ON [PRIMARY]
```

```
GO
```

```
CREATE INDEX [Estab_No] ON [dbo].[tbl_Licenses]([Estab_No]) ON [PRIMARY]
```

```
GO
```

```
CREATE INDEX [Issue_Order] ON [dbo].[tbl_Licenses]([Estab_No], [ToBe_Printed], [Print_Date]) ON [PRIMARY]
```

```
GO
```

```
ALTER TABLE [dbo].[tbl_LoadEnvIntAffiliation] WITH NOCHECK ADD
    CONSTRAINT [DF__tbl_LoadEnvIntAffiliation__EnvIntTypeCode] DEFAULT ('DCL') FOR [EnvIntTypeCode]
```

```
GO
```

```
ALTER TABLE [dbo].[tbl_Makes] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__List__396371BC] DEFAULT (0) FOR [List_Order],
    CONSTRAINT [aaaaatbl_Makes_PK] PRIMARY KEY NONCLUSTERED
```

```
(
    [Equip_Type],
    [Equip_Make]
) ON [PRIMARY]
```

```
GO
```

```
CREATE INDEX [tbl_MakesEquip_Make] ON [dbo].[tbl_Makes]([Equip_Make]) ON [PRIMARY]
```

```
GO
```

```
ALTER TABLE [dbo].[tbl_Models] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__List__349EBC9F] DEFAULT (0) FOR [List_Order],
    CONSTRAINT [aaaaatbl_Models_PK] PRIMARY KEY NONCLUSTERED
```

```
(
    [Equip_Type],
    [Equip_Make],
    [Equip_Model]
) ON [PRIMARY]
```

```
GO
```

```
CREATE INDEX [tbl_ModelsEquip_Make] ON [dbo].[tbl_Models]([Equip_Make]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tbl_Program_Control] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Sect__56E8E7AB] DEFAULT (0) FOR [Sect_1k],
    CONSTRAINT [DF__Temporary__Unit__57DD0BE4] DEFAULT (0) FOR [Unit_1k],
    CONSTRAINT [DF__Temporary__Prog__58D1301D] DEFAULT (0) FOR [Prog_Fine],
    CONSTRAINT [aaaaatbl_Program_Control_PK] PRIMARY KEY NONCLUSTERED
(
    [Sect_1k],
    [Unit_1k],
    [Prog_Code]
) ON [PRIMARY]
GO
```

```
CREATE INDEX [Sect_1k] ON [dbo].[tbl_Program_Control]([Sect_1k]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tbl_Solvent_Fees] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Perc__675F4696] DEFAULT (0) FOR [Perc_Plant_Fee],
    CONSTRAINT [DF__Temporary__Perc__68536ACF] DEFAULT (0) FOR [Perc_Lbs_Fee],
    CONSTRAINT [DF__Temporary__Petro__69478F08] DEFAULT (0) FOR [Petro_Per_Mach_Fee],
    CONSTRAINT [DF__Temporary__Petro__6A3BB341] DEFAULT (0) FOR [Petro_Add_Mach],
    CONSTRAINT [aaaaatbl_Solvent_Fees1_PK] PRIMARY KEY NONCLUSTERED
(
    [Solvent_Type]
) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[tbl_Transact] WITH NOCHECK ADD
    CONSTRAINT [DF__Temporary__Trans__0D3AD6BB] DEFAULT (0) FOR [Trans_Type],
    CONSTRAINT [aaaaatbl_Transact_PK] PRIMARY KEY NONCLUSTERED
(
    [AutoNumber]
) ON [PRIMARY]
GO
```

```
CREATE INDEX [TRANSACTIONESTAB_NO] ON [dbo].[tbl_Transact]([Estab_No]) ON [PRIMARY]
GO
```



### DATA INPUT SCREENS

DEQ Admin. - Version: 2.0.8
\_ □ ×

File Mail Print Establishments Transaction Log Inspection Locator Help

Establishment

State of Michigan  
DEQ  
 Department of Environmental Quality

Dry Cleaning Program Administration

Establishment	Billing \ Licensing	Inspections	Apply Field Changes
---------------	---------------------	-------------	---------------------

**Location Address**

Name:

Street 1:

Street 2:

City, St., Zip:

Phone:

---

**Owner Address**  Same as Location

Name:

Street 1:

Street 2:

City, St., Zip:

Phone:  Owner as of:

---

**Mailing Address**  Same as Location

Name:

Street 1:

Street 2:

City, St., Zip:

Phone:

**General Information**

Active  Inactive

Federal ID or SS:

Total Population:

Duty Mgr:

Estab. Type:

Machine Type:

County:

MDEQ District:

# Inspections:  Latest Lic. Status:

Last Insp. Date:  Last Approved Lic Yr:

Total Machines:  Total Dryers:

Active Machines:  Active Pounds:

Notes:

**DEQ Admin. - Version: 2.0.8**

File Mail Print Establishments Transaction Log Inspection Locator Help

Establishment:

State of Michigan  
  
 Dry Cleaning Program Administration  
 Department of Environmental Quality

Establishment | **Billing \ Licensing** | Inspections | Apply Field Changes

---

**Billing Information**

Cash Log

Check #	Check Amt.	Fee Code	Validation #	Validation Date	Lic. Year
▶ 99999	\$348.45		99999	6/20/2005	2005

---

**Licensing Information**

License Log

Lic. Year	License #	Date Printed	Status	Active Machs	Active lbs.	Annual Fee
▶ 2005	5693	9/16/2005	Approved	10	55	39.6
2005	5690	6/20/2005	Approved	1	55	172.65

---

Active Machines: 10	Additional Machine Fee: \$.00	Total Owed: \$212.25	<b>Latest Inspection:</b> <b>Findings:</b> <b>Date:</b>
Active Pounds: 55	Base Fee: \$.00	Total Received: \$348.45	
New Owner Date: 3/1/2005	Perc Pound Fee: \$.00	Balance Due: -\$136.20	
	Current Fee: \$.00		

**DEQ Admin. - Version: 2.0.8** [Min] [Max] [Close]

File Mail Print Establishments Transaction Log Inspection Locator Help

Establishment:  [Add] [Edit] [UnDelete] [Prev.] [Next]

[Lookup]

State of Michigan  
  
 Dry Cleaning Program Administration  
 Department of Environmental Quality

Establishment | Billing \ Licensing | **Inspections** | Apply Field Changes

Inspection Information

Inspections							
Date	Type	Time In	Time Out	Inspector	Origin		
Representative	Status	Findings	Contact	Activity	Days		

Rules Violated		
Insp. Area	Equip.	Rule

[Print] [Details] [Remove]

**Corrective Action:**



 MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION		
<b>DRY CLEANING INSPECTION REPORT</b> Issued under Authority of Part 133 of 1978 PA 368, Section 29.5i of 1941 PA 207, and 1994 PA 461, as amended		
Establishment No. Establishment Name Contact Person  0300003 MAPLEWOOD DRYCLEANERS JOHN	Inspection Started: June 16, 2004  Inspector: Karl Johnson	Inspection Completed:   Inspection Type: <input type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> FollowUp <input checked="" type="checkbox"/> Other
<b>FINDINGS</b>		
<input checked="" type="checkbox"/> Compliance, license recommended. <input type="checkbox"/> Not in substantial compliance, license recommended, however a follow up inspection is needed. <input type="checkbox"/> Not in substantial compliance, license not recommended, corrections are needed. <input type="checkbox"/> Imminent Danger <input type="checkbox"/> Other <input type="checkbox"/> Inactive <input type="checkbox"/> Delete		
<b>NEEDED CORRECTIONS</b>		
The following violations were noted during the inspections and need to be corrected as soon as possible.		
<hr/> <b>DRY CLEANING VIOLATIONS:</b> <b>None</b>		



Full Inspection Report

100% 1 of 5

**Inspection Performed: June 16, 2004**

Date Printed: July 06, 2005

Establishment - 0300003 MAPLEWOOD DRYCLEANERS 148 EAST 32ND STREET  HOLLAND, MI 49423 Ph. 616-392-2406 Owner: VERN HOUTING Duty Mgr. JOHN			Inspector: Karl Johnson		
			District #	2	
			County		
			Started:	June 16, 2004	
			Ended:	June 16, 2004	
			Insp. Type	Annual	
			Findings:	Compliance - License	
			Status	Compliance	
Estab. Type:	Origin:	Contact:	Activity:	Sol. Inst. Used:	CO Inst. Used:
Commercial	Self Initiated	Field Inv.	Survey		
Complaint Req #	Perc. Purchases for the three most recent years				Sm. Area
	2003 = 105.00 = 0.00 = 0.00				

Machines:

I.D.	Make:	Model:	Serial #	Type:
1	Detrex			Solvent Based
Size: 55	Solvent Type: Perc	Installation Date:		
Control Type	Control Installed Date			
Containment Type:				
Machine is inactive	Machine is non vented			
Notes:				



**DEQ Admin. - Version: 2.0.8**

File Mail Print Establishments Transaction Log Inspection Locator Help

Establishment: 5000022 [Add] [Edit] [Delete] [Prev.] [Next]

State of Michigan  
**DEQ** Department of Environmental Quality  
 Dry Cleaning Program Administration

[Lookup]

Establishment	Billing \ Licensing	Inspections	Apply Field Changes
<input type="checkbox"/> Inactive Date: _____ Estab Name: _____ Federal ID or SS: _____ Total Population: 5 Duty Manager: _____ MANAGER Estab Type: Commercial Machine Type: Dry to Dry County: Macomb MDEQ District: District 3 # Inspections: 4 Total Mach: 1      Total Dryers: 0 Active Mach: 1      Active Pounds: 35		<input type="checkbox"/> Inactive Date: _____ Estab Name: _____ Federal ID or SS: _____ Total Population: 5 Duty Manager: _____ MANAGER Estab Type: Commercial Machine Type: Dry to Dry County: Macomb MDEQ District: District 3 # Inspections: 4 Total Mach: 1      Total Dryers: 0 Active Mach: 1      Active Pounds: 35	

Loc. Addr	Owner Addr	Mail Addr.	Notes
Name: _____	_____	_____	_____
Street 1: _____	_____	_____	_____
Street 2: _____	_____	_____	_____
City, ST, Zip: ST. CLAIR SHORES MI 48081	_____	_____	_____
Phone: (586) _____	_____	_____	_____



# INSPECTOR'S SUMMARY REPORT



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION

## DRY CLEANING INSPECTION REPORT

Issued under Authority of Part 133 of 1978 PA 388, Section 29.5i of 1941 PA 207, and 1994 PA 451, as amended

Establishment No. Establishment Name Contact Person	Inspection Started:	Inspection Completed:
	Inspector:	Inspection Type: <input type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> FollowUp <input checked="" type="checkbox"/> Other

### FINDINGS

<input checked="" type="checkbox"/> Compliance, license recommended. <input type="checkbox"/> Not in substantial compliance, license recommended, however a follow up inspection is needed. <input type="checkbox"/> Not in substantial compliance, license not recommended, corrections are needed. <input type="checkbox"/> Imminent Danger <input type="checkbox"/> Other <input type="checkbox"/> Inactive <input type="checkbox"/> Delete
--

### NEEDED CORRECTIONS

The following violations were noted during the inspections and need to be corrected as soon as possible.

#### DRY CLEANING VIOLATIONS:

None

#### NESHAP VIOLATIONS:

##### Observation: Waste:

- Removed From Premises Dumped: Discussed the ramifications of using of not using a licensed waste hauler. I recommended a letter from the garbage service, an the land fill if he continued to put waste in the garbage. I suggested the use of a licensed waste hauler.

##### Observation: Machine # 2

- Cooling Coil Temp 41 Degrees: Cooldown cycle was extended to meet the 45 degree requirement.

Inspection Report Received by	Date:	Inspector's Signature:
-------------------------------	-------	------------------------

DRY CLEANING PROGRAM  
AIR QUALITY DIVISION  
MICHIGAN DEPARTMENT OF  
ENVIRONMENTAL QUALITY  
PO BOX 30630  
LANSING MI 48909-8130



FIELD INSPECTOR'S FORM

Inspection Performed: June 22, 2005

Date Printed: June 22, 2005

Establishment -  Ph. Owner: Duty Mgr.	Inspector:				
	District #				
	County				
	Started:				
	Ended:				
	Insp. Type		Annual		
Findings:		Other			
Status		Other			
Estab. Type:	Origin:	Contact:	Activity:	Sol. Inst. Used:	CO Inst. Used:
Commercial	Self Inflated	No Contact	Survey		

Complaint Rec # \_\_\_\_\_ Perc. Purchases for the three most recent years  
 = 0.00    = 0.00    = 0.00

**Machines:**

I.D.	Make:	Model:	Serial #	Type:
1	Hoffman	H2010/3	HD350693297	Solvent Based

Size: 35                      Solvent Type: Perc                      Installation Date: 1993  
 Control Type Ref. Condenser                      Control Installed Dat 1993  
 Containment Type OTHER  
 Machine is active                                      Machine is non vented

Notes:  
 SPIN, DECO, STILL, HEAT PUMP

**Boilers:**

I.D.	Serial #	Type	Room #	BTU/Hr	Horsepower
1	80742	Boiler	NW	840,000	20

Makeup Air Location: North Wall                      Size: 1,344  
 Notes:  
 1998 FULTON FB-A-20, 690 PPH.  
 15 AIR SLOTS OPEN.

2		Water Heater		0	0
---	--	--------------	--	---	---

Makeup Air Location:                      Size: 0  
 Notes:  
 LOCHINVAR vertical, gravity flue, water heater

**Ventilation:**

I.D.	Fan Location	Fan Size	Type	Makeup Air Location	Size Sq/In.
1	East Wall	24	Exhaust	North Wall	576

Location meets State requirements  
 Notes:

**DRY CLEANING OBSERVATIONS:**

Observation: General:

- (Ambient Air): b FORMAT
- (General Exhaust)
- (General Notes)



- (Pressing Area)

Observation: Machine # 1

- (Absorber Stack Emission): b FORMAT
- (All leaks repaired?)
- (Azeotropic Unit)
- (Button Trap Door)
- (Carbon Absorber)
- (Carbon Tower)
- (Cart. Filters drained 24 hrs.?)
- (Clothes In Basket Perc)
- (Compliant leak det/repair log?)
- (Compliant Recs. (up to 5 yrs.))
- (Condensing Tower)
- (Cooling Coil)
- (Cooling Coil Temp)
- (Door)
- (Empty Wheel)
- (Inlet/Outlet temp dif. > 20)
- (Lint Filter Door)
- (Loading Door Closed)
- (Mfg. Oper. Manual Avail. ?)
- (Muck Cooker)
- (Outlet Air Temp  $\leq$  45 Deg. F)
- (Perc in Drum  $\leq$  300 ppmv?)
- (Perc in Exhaust  $\leq$  100 ppmv?)
- (Room Encl. Has Neg. Pressure?)
- (Sample Port loc. O.K.?)
- (Steam Coil)
- (Steam Coil Nuts)
- (Still Fittings)



- (Still Site Glass)
- (Vapor Condensor)
- (VC In/Out Temp)
- (Waste in closed containers?)
- (Water Coll)
- (Water Sep. Accum. Bucket)
- (Water Separator Door)
- (WC In/Out Temp)

Observation: Boiler # 1

- (CO At Exhaust Stack): b FORMAT
- (CO At Fittings)
- (CO At Hand Hole)
- (CO General Work Area)
- (CO In Room)
- (CO In Stack)
- (CO Water Fittings)

Observation: Boiler # 2

- (CO At Exhaust Stack): b FORMAT
- (CO At Fittings)
- (CO At Hand Hole)
- (CO General Work Area)
- (CO In Room)
- (CO In Stack)
- (CO Water Fittings)

Observation: Ventilation # 1

- (Exhaust Fan Rating): b FORMAT
- (Makeup Air Size)
- (Powered Makeup Air Rating)

Observation: Safety:



- (Eye Wash): b FORMAT

- (Fire Extinguisher)

- (First Aid Kit)

- (Respirator)

**Observation: Waste:**

- (Filters Drained): b FORMAT

- (Filters Stored Covered)

- (Removed From Premises)

- (Sludge In Covered Cont.)

- (Solvent Cooked)

- (Waste Water)

**Observation: Building:**

- (Bldg Free Standing): b FORMAT

- (Floor Material)

- (HVAC Business Only)

- (Joint Tenants)

- (Sewer System)

- (Vapor Seal)

- (Water System)

**Observation: Training:**

- (Maintenance Program) : b FORMAT

- (Manuals)

- (Personnel Training)

**NESHAP OBSERVATIONS:**

None



**NESHAP General Maintenance**

Are all wastes stored in closed/non leaking containers? \_\_\_\_\_

Are cartridge filters drained for 24 hrs. before removal? \_\_\_\_\_

Are dry cleaning machine doors kept closed? \_\_\_\_\_

Are machines operated according to mfg's specifications? \_\_\_\_\_

Are dates of repair logged? \_\_\_\_\_

General NESHAP related observatio \_\_\_\_\_

**NESHAP Record Keeping**

Is the volume of perc. purchased each month logged? \_\_\_\_\_

Are 12 month perc. purchases calculated on the first working day of each month logged? \_\_\_\_\_

Are dates of inspections and identification of leaking components logged? \_\_\_\_\_

Are process vent control monitoring results logged? \_\_\_\_\_

Are dates of repairs logged? \_\_\_\_\_

Machines: \_\_\_\_\_

**NESHAP Non-Vented Dry to Dry - no control necessary-factory refrig. or converted refrig.**

Is the air-perchloroethylene gas-vapor outlet stream  $\leq 7.2^{\circ}\text{C}$  (45°F) to an accuracy of  $\pm 1.1^{\circ}\text{C}$  ( $\pm 2^{\circ}\text{F}$ )? \_\_\_\_\_

Is an operating manual available on site? \_\_\_\_\_

Is there a NESHAP inspection log? \_\_\_\_\_

Major Source Only; (>2100 gal./12 mo.): Is perc. concentration in wheel  $\leq 300$  ppmv? \_\_\_\_\_

Machines: \_\_\_\_\_

**NESHAP Dry to Dry Vented**

Is the air-perchloroethylene gas-vapor outlet stream  $\leq 7.2^{\circ}\text{C}$  (45°F) to an accuracy of  $\pm 1.1^{\circ}\text{C}$  ( $\pm 2^{\circ}\text{F}$ ) ? Is the temperature gauge within range? \_\_\_\_\_

Is the concentration of perchloroethylene in the exhaust of the carbon adsorber before desorbtion while venting to the adsorber  $\leq 100$  ppmv to the accuracy of  $\pm 25$  ppmv? \_\_\_\_\_

Is the location of the sampling port acceptable? \_\_\_\_\_

Is an operating manual available on site? \_\_\_\_\_

Is there a NESHAP inspection log? \_\_\_\_\_

Machines: \_\_\_\_\_

**NESHAP Wet Wheel With Dryer**

Is the difference between the temperature of the air-perchloroethylene gas vapor stream entering the refrigerated condenser and exiting the vapor condenser  $\geq 11.1^{\circ}\text{C}$  (20°F)? \_\_\_\_\_

Is the temperature gauge range at least from  $0^{\circ}\text{C}$  (32°F) to  $48.9^{\circ}\text{C}$  (120°F)  $\pm 1.1^{\circ}\text{C}$  ( $\pm 2^{\circ}\text{F}$ )? \_\_\_\_\_

Is the concentration of perchloroethylene in the exhaust of the carbon adsorber before desorbtion while venting to the adsorber  $\leq 100$  ppmv to the accuracy of  $\pm 25$  ppmv? \_\_\_\_\_

Is the location of the sampling port acceptable? \_\_\_\_\_

Is an operating manual available on site? \_\_\_\_\_

Is there a NESHAP inspection log? \_\_\_\_\_

Major Source Only (>1800gal/12mo) Is room enclosure maintaining negative pressure and vented to carbon adsorbe \_\_\_\_\_

Machines: \_\_\_\_\_

Page 5 of 5



**APPENDIX III**  
Personnel Resume Form

Complete a form for each staff person involved with the project.

<b>Proposed Resource Name:</b>		<b>Key Personnel Y/N</b>
<b>Proposed Role:</b>	<i>Project Manager, Programmer</i>	
Associated with: (check one):	Prime Bidder	Subcontractor
Percentage of Time to be allocated to Project		

List the skills and experience that qualify the individual for the duties and responsibilities on this project for the proposed role. Please provide the year(s) the experience was acquired.

Evaluation Criteria	Bidder's Response
Completed at least two major environmental information Exchange Network projects that involve technical development of major State/USEPA data flows and be capable of facilitating/collaborating works with representatives from states and USEPA with diverse technical backgrounds. Examples of major State/USEPA data flows are listed below:  a. Air Quality System (AQS) b. PCS/IDEF/e-DMR (Discharge Monitoring Reports) c. Facility Registry System (FRS) d. National Emission Inventory (NEI) e. NESHAPS f. RCRAInfo	
Demonstrated comprehensive working experiences, during the past three years, of environmental data tracked by the State (e.g., data flows listed above) to facilitate the gathering of critical environmental information vital to support the <b>MERP for the Dry Cleaning Sector</b> initiatives	
Demonstrated project experience for developing XML schemas for national environmental data flow use,	
Demonstrated working knowledge of Exchange Network architecture, Node protocols, data standards, registry, and Core Reference Model	
Demonstrated working knowledge of developing and applying environmental data standards for exchange network related projects	
Demonstrated working knowledge of Exchange Network Node requirements including successful examples of implemented working states Nodes using both .NET and JAVA environment	
Prior working experience with USEPA Headquarters and Regional offices.	



List client references for work used to meet the requirements stated above, and all projects the proposed resource has worked on in the last three (3) years. Three (3) references are preferred. By submission of this information, the bidder and identified key person authorize the State of Michigan to contact references and previous employers provided to verify the accuracy of the information. Provide the identified information for each:

Start Date: <i>date started on project</i>	End Date: <i>date rolled off project</i>
Client/Project: <i>Client, with contact information, and project</i>	
Employer: <i>identify employer at the time of experience</i>	
Title/Percentage of time: <i>title of role on project and percentage of time spent on project</i>	
Description: <i>brief description of responsibilities for the project. Include software version</i>	

Start Date:	End Date:
Client/Project:	
Employer:	
Title/Percentage of time:	
Description:	

Start Date:	End Date:
Client/Project:	
Employer:	
Title/Percentage of time:	
Description:	

Certifications/Affiliations: *Description, including relevant dates*

The Bidder must submit a letter of commitment, signed by the identified resource, stating their commitment to work for the bidder/subcontractor on this project contingent on award of the bid.

**APPENDIX IV**  
Quality Assurance Project Plan (QAPP)

**Michigan Department of Environmental Quality**  
**Michigan Environmental Results Program for the Dry Cleaning Sector**  
**Quality Assurance Project Plan**

**Michigan Department of Environmental Quality**  
**Environmental Science and Services Division**  
**525 West Allegan Street**  
**Lansing, MI 48909**

**Project Manager Contact Information:**  
**Teresa Kinder**  
**MDEQ, ESSD Constitution Hall 1<sup>st</sup> Floor North Tower**  
**525 West Allegan Street**  
**Lansing, MI 48909**  
**[kindert@michigan.gov](mailto:kindert@michigan.gov)**  
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## A1. Approval Sheet

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September 30, 2004

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Marcia Horan  
MDEQ, ESSD  
MERP Quality Assurance Officer

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September 30, 2004

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September 30, 2004

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**A3. Distribution List**

Each person listed on the approval sheet and each person listed under Project/Task Organization will receive a copy of this Quality Assurance Project Plan (QAPP). Individuals taking part in the project may request additional copies of the QAPP from personnel listed under Section A4.

This document has been prepared according to the United States Environmental Protection Agency publication *EPA Requirements for Quality Assurance Project Plans* dated March 2001 (QA/R-5).

**A4. Project/Task Organization**

Personnel involved in project implementation are listed in Table 1, and shown as an organization chart in Figure 1.

**Table 1: Project Implementation Personnel**

<b>Individual</b>	<b>Role in Project</b>	<b>Organizational Affiliation</b>
Teresa Kinder	Project Manager	MDEQ-ESSD
Marcia Horan	QA Manager/Officer	MDEQ-ESSD
Michael Bray	Program Manager	MDEQ-AQD

The Michigan DEQ Project Manager will be responsible for the following activities:

- Conduct outreach with regulated industry and internal/external stakeholders
- Identify project participants
- Develop audit procedures
- Develop compliance assistance documents in consultation with stakeholders
- Develop enforcement policy and procedures for MERP participating facilities in consultation with stakeholders
- Utilize regulatory flexibility
- Maintain official, approved QAPP
- Develop amended QAPP, as necessary
- Issue quarterly and annual reports to U.S. EPA

Contractor (to be determined) will be responsible for the following activities:

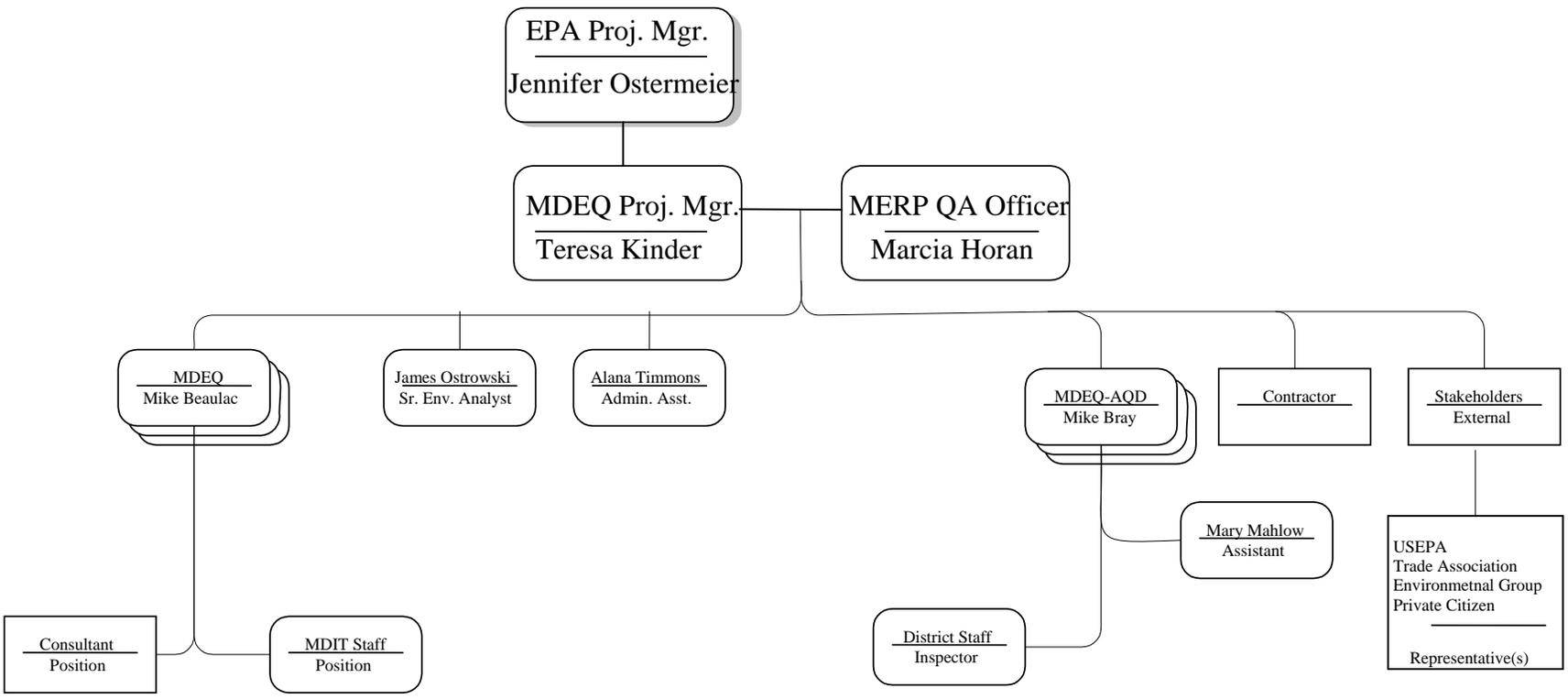
- Statistical integrity of the universe to be inspected.
- Database development and integrity

Partners (to be determined) will be responsible for the following activities:

- Assist in the identification of the facility universe
- Review of compliance materials
- Assist with workshops and distribution of compliance materials
- Marketing

The participating facilities will be responsible for submitting self-certification materials and, if applicable, returning to compliance.

Figure 1: Project Organizational Chart





## A5. Problem Definition/Background

The dry cleaner industry is subject to both federal and state environmental regulations pertaining to air, water, solid and hazardous waste generation. With regards to air quality, dry cleaners are subject to the federal National Emission Standard for Hazardous Air Pollutants (NESHAP) or New Source Performance Standard (NSPS). NESHAP area sources are presently deferred from Title V permitting. In the event that the proposed Title V permit deferral for large area sources is not made permanent, the MDEQ-AQD will develop and implement a plan to insure that the applicable regulatory requirements are met. Only NSPS subject major sources are subject to Michigan's Title V Permitting Program as cited in Michigan's Air Pollution Control Rule R 336.1211. The MDEQ regulatory divisions recognize that there is a need to work more closely with the dry cleaning industry to improve their understanding of and compliance with all of their applicable environmental regulations especially the monitoring, record keeping, and waste characterization requirements.

### Rationale for initiating the project.

The MDEQ plans to incorporate the air, water, and waste requirements for the dry cleaner sector into a multi-media, self-certification, compliance assistance package through the Michigan Environmental Results Program (MERP). The MERP pilot will defer national pollution discharge elimination systems, treatment storage and disposal facilities and major sources subject Title V their respective programs.

The MDEQ will establish a multi-media regulatory inspection program. The MDEQ will assign an expert from each media to assist in the development of inspector checklists, provide hands-on training for the multi-media inspector, and act as the point of contact and a technical resource for the dry cleaner multi-media inspector for their specific media.

### Objectives of the project.

The MDEQ goals and objectives for the dry cleaning MERP are outlined below:

- Provide compliance assistance for all facilities within the dry cleaner sector.
- Utilize existing regulatory staff resources for multi-media (versus single-media) inspections, in order to produce an administrative efficiency within the MDEQ.
- Develop a series of templates for multi-media inspection and compliance assistance tools that can easily be adapted for other states' use.
- Develop a detailed process, including the "dos and don'ts", to effectively evaluate and provide a decision-making checklist for future potential MERP approaches to other sectors.
- Develop a multi-media inspection technique training series for use by single media inspectors.
- Encourage the use of pollution prevention activities and Best Management Practices (BMPs).
- Promote lasting change and improvement in environmental performance through environmental management system type compliance assistance tools.
- Develop the framework of a MERP that can be transferred and be applied to other more complex sectors.
- Collaboratively work with the major industry stakeholders, the U.S. Environmental Protection Agency (USEPA), and the MDEQ program administration to provide flexibility for facilities that participate in the MERP as a means to satisfying their multi-media environmental requirements.

### Regulatory information, applicable criteria and action limits.

The dry cleaning sector is subject to both state and federal requirements for air, water and waste media. The owners/operators are required to register with the MDEQ on annual basis in order to receive a license to operate. MDEQ will utilize the licensing process to enlist the owners/operators to participate in the MERP project.

## A6. Project/Task Description

### Project overview.

This project will allow MDEQ to explore whether an approach modeled upon the Environmental Results



Program (ERP) can help achieve these goals, while improving regulatory cost-effectiveness. The ERP is an innovative approach to solving high-priority environmental problems in industry sectors largely comprised of small businesses. The ERP concept combines technical assistance, self-certification, inspections, and statistically based performance measurement in order to reduce environmental impacts of business.

The promise of ERP is that it will cost-effectively reduce environmental impacts of small businesses that may present a substantial cumulative environmental risk. Businesses targeted so far by ERP include gas stations, auto salvage yards, auto body and mechanical repair shops, dry cleaners, and printers. ERP can help environmental agencies identify previously unknown facilities, measure performance, increase regulatory efficiency, and help improve overall environmental performance. ERP is in part designed to help facilities that want to comply but don't understand their requirements, and evidence suggests that ERP can motivate firms to comprehensively review their environmental performance and take needed action to come into compliance and adopt best practices.

Project summary and work schedule.

This project's major tasks and timeline are outlined in the table below.

**Table 2: Schedule of Major Project Tasks**

<b>Task Name</b>	<b>Task Description</b>	<b>Start Date</b>	<b>End Date</b>
Outreach	Outreach to internal and external stakeholders (including targeted facilities) about the project.	11-1-2004	8-16-2005
Goals Identification	Finalize the goals of this project upon which metrics will be based	11-1-2004	2-4-2005
Measures Identification	Finalization of metrics to be tracked by this project.	11-1-2004	4-1-2005
Facility Identification	Determine the exact characteristics of facilities to be included in this project and compile a list of facilities from reliable sources.	4-4-2005	11-7-2005
Statistical Methodology	Development of a statistical methodology to drive performance measurement and analytical tasks.	6-21-2005	11-14-2005
Data Input and Management	Development and implementation of an approach to cost-effectively input and manage the MERP data, including primary and secondary data. Primary data consists of data from inspection reports and facility forms (including self-certification forms). Secondary data sources include lists of facilities from regulatory and private-sector databases.	11-1-2004	6-20-2005
Quality Assurance Project Plan Finalization and Approval (QAPP)	Finalize the QAPP based upon results of the measures identification, statistical methodology, and data management tasks. Primary data collection will not occur before relevant parts of the QAPP are finalized and approved by the USEPA.	11-1-2004	4-1-2005
Baseline Inspections (establishing a performance measures baseline)	Inspections at facilities to establish a baseline for performance measures. Facilities selected at random from the entire targeted population based upon sample design from statistical methodology.	3-28-2006	6-6-2006



Baseline Analysis	Analysis of inspection data to establish a baseline for the project's performance measures.	6-6-2006	7-7-2006
Facility Assistance	Delivery of compliance/technical assistance to facilities, which is expected to take the form of workbooks, fact sheets, and/or workshops.	9-6-2006	4-11-2007
Self-certification	Implementation of a voluntary facility self-certification approach. Self-certification refers to the submission of a record of a facility's compliance and beyond-compliance practices.	11-1-2004	10-4-2006
Analysis of Self-certification Results	Analysis of self-certification data, with primary purpose of identifying opportunities for selective follow-up (next step).	5-15-2007	10-30-2007
Selective Follow-up	Selective follow-up with self-certifying facilities, based upon analysis of self-certification data. Selective follow-up may include telephone calls, inspections, and enforcement. Selective follow-up is not typically based upon a random sample.	11-13-2007	11-30-2007
Post-Certification Inspections	Inspections at facilities to establish whether sector performance measures (and other measures) have changed since the baseline. Inspection data also used to cross-check self-certification data at inspected facilities. Facilities selected at random from the entire universe of facilities, based upon sample design from statistical methodology. If resources allow, this project may collect representative samples from sub-populations (e.g., to compare the performance of certifiers to non-certifiers). The MDEQ recognizes that analytical challenges are presented by such an approach. Such challenges will be addressed in the statistical methodology, and the approach will be reflected in the amended QAPP.	11-30-2007	2-1-2008
Data Analysis	Analysis of baseline, self-certification, and post-certification data to understand change in facility performance and overall outcomes of interest. Assessment of project efficiency.	2-1-2008	2-29-2008
Reporting to the USEPA	Reporting shall include quarterly, annual, and final reports.	2-15-2008	3-7-2008

*Geographic focus.*

Statewide

*Resource and time constraints.*

Coordination and development requirements of the database and electronic reporting capabilities are unknown until a full analysis of the current status of the program is evaluated. The evaluation will be performed by external contractor and will then provide a cost estimate based upon the results of the evaluation.

This section of the QAPP will be amended upon completion of the evaluation.

**A7. Quality Objectives and Criteria**



Detailed performance measures.

This project is primarily interested in the following list of likely performance measures. Note that one of the tasks of this project involves revisiting and reaffirming/revising these draft performance measures. The final list including the quantitative data quality objectives will be submitted in a QAPP amendment. This quantitative data will not be collected prior to QAPP approval.



**GOALS/MEASUREMENT FOR MERP**

Goal	Measurement
<p>1. Provide compliance assistance for all facilities.</p>	<p>Track - # of attendees at workshops (% of total universe)                      # of guidebooks sent to facilities                      # of facilities in universe                      # of compliance assistance calls received                      # of hours to develop permit                      Customer evaluation based on survey data</p>
<p>2. Utilize existing regulatory staff resources for multi-media (MM) versus single media inspections in order to produce an administrative efficiency within the MDEQ.</p>	<p>Track - # of FTE hours prior to MERP                      # of FTE hours during pilot                      # of FTE hours after pilot</p>
<p>3. Develop a series of templates for MM inspection and compliance assistance tools that can easily be adapted for other states' use.</p>	<p>Identify all federal and state-only requirements in compliance assistance documents and tools</p>
<p>4. Develop a detailed process, including the dos and don'ts, to effectively evaluate and provide a decision-making checklist for future potential ERP approaches to other sectors.</p>	<p>Determine % of MERP process transferable to other sectors                      Track - # of FTE hours to develop MERP                      # of FTE hours for each subsequent sector                      IT costs</p>
<p>5. Develop a MM inspection technique series for use by single media inspectors.</p>	<p>Track - # of inspector hours prior to MERP                      # of inspector hours during pilot                      # of inspector hours after pilot                      Travel costs</p>
<p>6. Encourage the use of P2 activities and BMP.</p>	<p>Track - # of BMP prior to MERP                      # of BMP during pilot                      # of BMP after pilot</p> <p>Quantify cost savings realized as a result of P2 and BMP.</p>
<p>7. Promote lasting change and improvement in environmental performance through EMS type compliance assistance tools. Collaboratively work with the major industry stakeholders, USEPA, and MDEQ program administration to provide flexibility for facilities that participate in the MERP as a means to satisfying their multi-media environmental requirements</p>	<p>Quantify potential pollution reduction per media before MERP.                      Track – Compliance with EBPI prior to MERP                      Compliance with EBPI during pilot                      Compliance with EBPI after pilot                      Quantify of pollution reduction per media after MERP</p> <p>Quantify cost savings to comply with regulations.</p>



<p>8. Develop the framework of a MERP that can be transferred and be applied to other more complex sectors.</p>	<p>Determine % of MERP process transferable to other sectors Track - # of FTE hours to develop MERP # of FTE hours for each subsequent sector</p>
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### Quality objectives.

Quality objectives for these performance measures will be developed as part of the Measures Identification and Statistical Methodology tasks. Specific quality objectives for these measures as a group (and, if necessary, individually) will be provided in the anticipated amendment to the QAPP.

The amendment to the QAPP will ensure that the quality objectives for these performance measures are appropriate for the regulatory and non-regulatory decisions to be made based upon those measures. This determination will take into account both the best practices for similar projects and the resources available for this project. In part, the Project Manager will rely upon EPA's *Generic Guide to Statistical Aspects of Developing an Environmental Results Program* (2003) for advice in making decisions related to the optimizing the following aspects of data quality for this project:

- Precision
- Bias
- Representativeness
- Completeness
- Comparability
- Sensitivity (if applicable)

### **A8. Special Training/Certification**

*The MDEQ and will develop and deliver mandatory and voluntary training sessions to key parties to ensure quality data collection, to the extent practicable.*

*Mandatory intensive in-person training sessions will be delivered to the following individuals to ensure quality data collection:*

- Inspectors who will be collecting baseline and post-certification data
- Data-entry personnel who will be processing data from inspections and self-certification responses
- QA/QC personnel (if any additional training is needed to familiarize them with the project)
- Individuals who will be compiling the database containing the universe of facilities

Each session will cover proper data collection and QA procedures. Training will be augmented by debriefing personnel shortly after their tasks have begun, to correct and clarify appropriate practices.

Voluntary intensive in-person training sessions will be offered to the self-certifying facilities. Facilities will also be provided with clear written instructions on how to prepare and submit data, and they will be able to call a phone number to ask anonymous questions if they wish.

The Project Manager is responsible for ensuring that all personnel involved with data generation (including state personnel, contractors, and partners) have the necessary QA training to successfully complete their tasks and functions. The Project Manager will document attendance at all training sessions. Attendance records for voluntary trainings may not include names, given privacy/confidentiality concerns.



The Project Manager is also responsible for ensuring the self-certification materials sent to facilities clearly document how facilities should properly prepare and submit their data.

## **A9. Documents and Records**

### Report format/information.

The format for all data reporting packages will be consistent with the requirements and procedures used for data validation and data assessment described in this QAPP.

### Document/record control.

The recording media for the project will be both paper and electronic. The project will implement proper document control procedures for both. For instance, hand-recorded data records will be taken with indelible ink, and changes to such data records will be made by drawing a single line through the error with an initial by the responsible person. The Project Manager will have ultimate responsibility for any and all changes to records and documents. Similar controls will be put in place for electronic records.

The MDEQ Quality Assurance Officer shall retain all updated versions of the QAPP and be responsible for distribution of the current version of the QAPP. The MDEQ Quality Assurance Officer and the MDEQ Project Manager will approve annual updates. The Project Manager shall retain copies of all management reports, memoranda, and all correspondence between the MDEQ and all project personnel identified in A4.

### Other records/documents.

Other records and documents that will produced in conjunction with this project include:

- Inspection checklists and reports
- Self-certification forms
- Return-to-compliance forms
- Non-applicability forms
- Enforcement documentation
- Facility outreach materials, including workbook, fact sheets, brochures, etc.
- Amended QAPP
- Readiness reviews (see below)
- Data handling reports
- Quarterly and annual progress reports to EPA
- Project final report (to include discussion of QA issues encountered, and how they were resolved)
- Photographs

### Storage of project information.

The project information will contain copies of federal and state grant documentation, including applications, awards, amendments, financial status reports and correspondence. This information is used for budget projections and for allocation purposes. The records will be retained in the originating section until grant closeout, and then stored at the State of Michigan Records Center for an additional 5 years.

### Backup of electronic files.

For all central office electronic files, a full backup is completed weekly onto tape. The backup tapes are stored off-site. For all district offices, a full backup is completed on a continuous basis. The data is stored in electronic vaults off-site.



## B DATA GENERATION AND ACQUISITION

### B1. Sampling Process Design (Experimental Design)

A key task in this project will be to develop a sound statistical methodology for collecting and analyzing facility data, in order to draw inferences related to the selected performance measures. The major quality objective will be to collect representative data that truly reflect the conditions of the universe of facilities that this ERP focuses. Facility data is of two types: (1) inspection data, which will be collected by trained MDEQ inspectors from randomly sampled facilities, and (2) self-certification data<sup>1</sup>, which will be collected from facilities through a mail or electronic-submittal survey process. Participating facilities will be required to respond, so this step is similar to a census. While the precise methods are not known at this point, they are expected to be built upon the advice given in EPA's *Generic Guide to Statistical Aspects of Developing and Environmental Results Program* (2003).

This section of the QAPP will be amended upon completion of the project-specific statistical methodology.

### B2. Sampling Methods

As described above, the primary data collected and used by this ERP will come from a survey data collection process. This section of the QAPP will be amended upon completion of the project-specific statistical methodology, which will detail the statistical sampling methods to be used. As mentioned elsewhere, that methodology will be prepared consistent with the principles identified in the EPA's *Generic Guide to Statistical Aspects of Developing an Environmental Results Program* (2003).

#### Preparation of data collection instruments.

All data collection instruments will be subject to multiple rounds of review by relevant internal and external stakeholders to help assure the collection of high-quality and representative data. Data collection instruments will be prepared in accordance with the guidance on data collection instruments provided in EPA's *Generic Guide to Statistical Aspects of Developing an Environmental Results Program* (2003). Specifically, preparation will follow the checklist for data collection instruments provided in an appendix of that guide.

### B3. Sample Handling and Custody

Upon completion of paper checklists, inspectors will sign the checklists. Inspectors will enter data from paper checklists into the electronic database. Inspectors will be issued procedural guidelines for data input. Facilities will mail or submit electronically signed forms into MDEQ, where data-entry staff will input hard copy data into the electronic database.

Chain of custody is not relevant to this project.

#### Data entry QA procedures.

Procedures for entering hand-written data into the database will follow standard quality assurance procedures (e.g., 100% verification using independent double key entry.) Detailed quality assurance procedures for data entry and acceptance will be prepared during the development and implementation of a data management strategy. The final QAPP will reflect the strategy.

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<sup>1</sup> Includes data from self-certification forms, return-to-compliance forms, and non-applicability forms.



**B4. Analytical Methods**

This project will follow well-recognized statistical analytical methods for survey samples. This section will be amended upon completion of the detailed statistical methodology. No physical tests or chemical analyses are anticipated for this project.

**B5. Quality Control**

This project will undertake the following specific steps to measure/estimate the effect of data errors.

Crosschecking data.

Primary data collection forms will be designed in such a way to allow internal crosschecking of data by comparing answers of different questions to each other, and such crosschecking will be automatic for electronically entered data. Further, post-certification inspections will offer the opportunity to compare inspection results with self-certification results, if the facilities sampled have submitted self-certification forms.

Data anomalies.

Procedures for handling data anomalies (such as outliers and missing data) will be handled based on guidance prepared in the project-specific statistical methodology.

Quality control statistics.

The quality control statistics to be used in this project are described in more detail in section D3.

**B6. Instrument/Equipment Testing, Inspection and Maintenance**

This section is not relevant to this project. The project will not involve such scientific instruments and equipment.

**B7. Instrument/Equipment Calibration and Frequency**

This section is not relevant to this project. The project will not involve such scientific instruments and equipment.

**B8. Inspection/Acceptance for Supplies and Consumables**

This section is not relevant to this project. The project will not involve such supplies and consumables.

**B9. Non-Direct Measurements (I.e., Secondary Data)**

This project will rely upon secondary data to identify the facilities in the target population.

**Table 3: Non-Direct Measurements (I.e., Secondary Data)**

Data Sources	Intended Use	Rationale for Use	Acceptance Criteria
MDEQ database of facilities	Identifying the target population, for the sample	Commonly accepted source of facility list	All records will be accepted unless sample response indicates facility should not be part of target population. MDEQ will crosscheck any facility that self-identifies as non-applicable to this project.



Key resources/support facilities needed.

MDEQ will require access to the data sources mentioned above, and this information will be managed within the database created/utilized for the overall project. MDEQ does not anticipate any obstacles to this approach.

Determining limits to validity and operating conditions.

Database containing the list of targeted facilities will be designed such that the original source for all facility data is marked, and procedures will be in place such that only the Project Manager can officially remove a facility entry from the target population. In such cases, facility entry will not be deleted from the database but will be marked as non-applicable, and corrective data will be provided in fields parallel to the original data.

**B10. Data Management**

As part of this project, MDEQ along with the contractor (to be determined) will develop a data management strategy, and amend the QAPP based upon the strategy. The Project Manager is responsible for ensuring that that strategy is developed and that the QAPP is amended to reflect that strategy. Once amended, this QAPP section on data management will provide information on the following issues:

- Data management scheme, from field to final use and storage
- Standard recordkeeping and tracking practices, and document control system (citing relevant agency documentation)
- Data handling equipment/procedures that will be used to process, compile, analyze, and transmit data reliably and accurately
- Individuals responsible for elements of the data management scheme
- Process for data archival and retrieval

**C ASSESSMENT/OVERSIGHT**

**C1. Assessment and Response Actions**

The Quality Assurance Officer will conduct a Readiness Review immediately prior to the five major data collection tasks: identifying targeted facilities, baseline inspections, self-certification, targeted follow-up, and post-certification inspections.. The QA Officer will report findings to the Project Manager, who will take corrective action (if any is necessary) before the data collection task begins. Further, the Project Manager and QA Officer will thoroughly debrief project implementation staff a short time after beginning their respective implementation tasks, to identify emerging/unanticipated problems and take corrective action, if necessary.

**C2. Reports to Management**

Three kinds of reports will be prepared: readiness reviews (described above), regular quarterly and annual progress reports, and project final report. Progress reports will note the status of project activities and identify whether any QA problems were encountered (and, if so, how they were handled). Project final report will analyze and interpret data, present observations, draw conclusions, identify data gaps, and describe any limitations in the way the data should be used.



**Project QA Status Reports**

<b>Type of Report</b>	<b>Frequency</b>	<b>Preparer</b>	<b>Recipients</b>
Amended QAPP	Once, before primary data collection begins	MDEQ Project Manager	All recipients of original QAPP
Readiness Review	Before each major data collection task	MDEQ QA Officer	MDEQ Project Manager and Program Manager
Progress Report	Quarterly	MDEQ	U.S. EPA Project Officer (Copying US EPA OPEI)
Progress Report	Annually	MDEQ	U.S. EPA Project Officer (Copying US EPA OPEI), stakeholders
Final Project Report	Once	MDEQ	U.S. EPA Project Officer (Copying US EPA OPEI), stakeholders

**D DATA REVIEW AND EVALUATION**

**D1. Data Review, Verification and Validation**

This QAPP shall govern the operation of the project at all times. Each responsible party listed in Section A4 shall adhere to the procedural requirements of the QAPP and ensure that subordinate personnel do likewise.

This QAPP shall be reviewed at least annually to ensure that the project will achieve all intended purposes. All the responsible persons listed in Section A4 shall participate in the review of the QAPP. The Project Manager and the Quality Assurance Officer are responsible for determining that data are of adequate quality to support this project. The project will be modified as directed by the Project Manager. The Project Manager shall be responsible for the implementation of changes to the project and shall document the effective date of all changes made.

It is expected that from time to time ongoing and perhaps unexpected changes will need to be made to the project. The Project Manager shall authorize all changes or deviations in the operation of the project. Any significant changes will be noted in the next report to EPA, and shall be considered an amendment to the QAPP. All verification and validation methods will be noted in the analysis provided in the final project report.

**D2. Verification and Validation Methods**

To confirm that QA/QC steps have been handled in accordance with the QAPP, a readiness review will be conducted before key data collection/analysis steps, and data handling reports will be prepared after each step. Standard statistical tests (described below in Section D3) will be used to determine the extent to which inferences can be drawn from the sample data.



### D3. Evaluating Data in Terms of User Needs

This section will be written and finalized after completion of the project-specific statistical methodology identified in EPA's *Generic Guide to Statistical Aspects of Developing an Environmental Results Program* (2003). This section will present the following information:

*Meeting and reporting needs of your project.*

This section shall contain a description of how the results of the study will be analyzed and evaluated to determine whether the needs of the project were met and then reported.

*Mathematical and statistical formulae.*

This section shall contain details of formulae that will be used to calculate precision, accuracy/bias, completeness, and comparability of the project data.

*Approach to managing unusable data.*

This section shall contain a description of what will happen if data are unusable, with particular emphasis on the impact of such unusability on data representativeness.



Appendix V

# Application Hosting Services

## Understanding Constitution Hall Consolidated Internet Application Hosting Environment

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Department of Information Technology  
Agency Services

Constitution Hall  
Application Hosting Services



## Overview

The purpose of this working document is to assist in the understanding of the overall consolidated application hosting environment. This document will describe the current hardware, operating systems, configuration, processor, memory, and storage capability as well as currently supported technologies and third-party supported software for application integration.

Even though this document contains some detailed aspects of the hosting environment, it should mainly be used for a general understanding of the consolidated hosting environment as it is always maturing. Since this document is a dated snap shot of the current hosting environment, software application developers should continually communicate with the hosting operations teams to ensure any designs, assumptions, questions, or issues are addressed as early as possible in the software application product lifecycle.

## Software Architecture

Software applications developed by staff and contractors may have different client-server software architectures. Software applications may be designed using 2-tiers, 3-tiers, or n-tier software architectures depending on many factors and business requirements. Software architectures can be designed so the presentation layer, business logic layer, and data layer are contained within each or all of the tiers.

Software architectures are the responsibility of the contractor or staff developing a software application. However, the overall systems architecture (which includes the hosting environment) is the joint responsibility of both the software development team and hosting operations teams.

In order for the hosting operations teams to best meet the needs of each software application, an Application Hosting Requirements form should be completed for each new or enhanced software application. Details include but are not limited to the type of application, technologies used, and memory requirements, storage requirements, transaction speed, uptime, backups, security isolation, configuration, throughput should be communicated to the hosting team. In addition, all major milestones in the product lifecycle of a software application should be communicated to the operations teams including but not limited to analysis, design, code, maintenance, as well as training plans, testing and implementation plans.

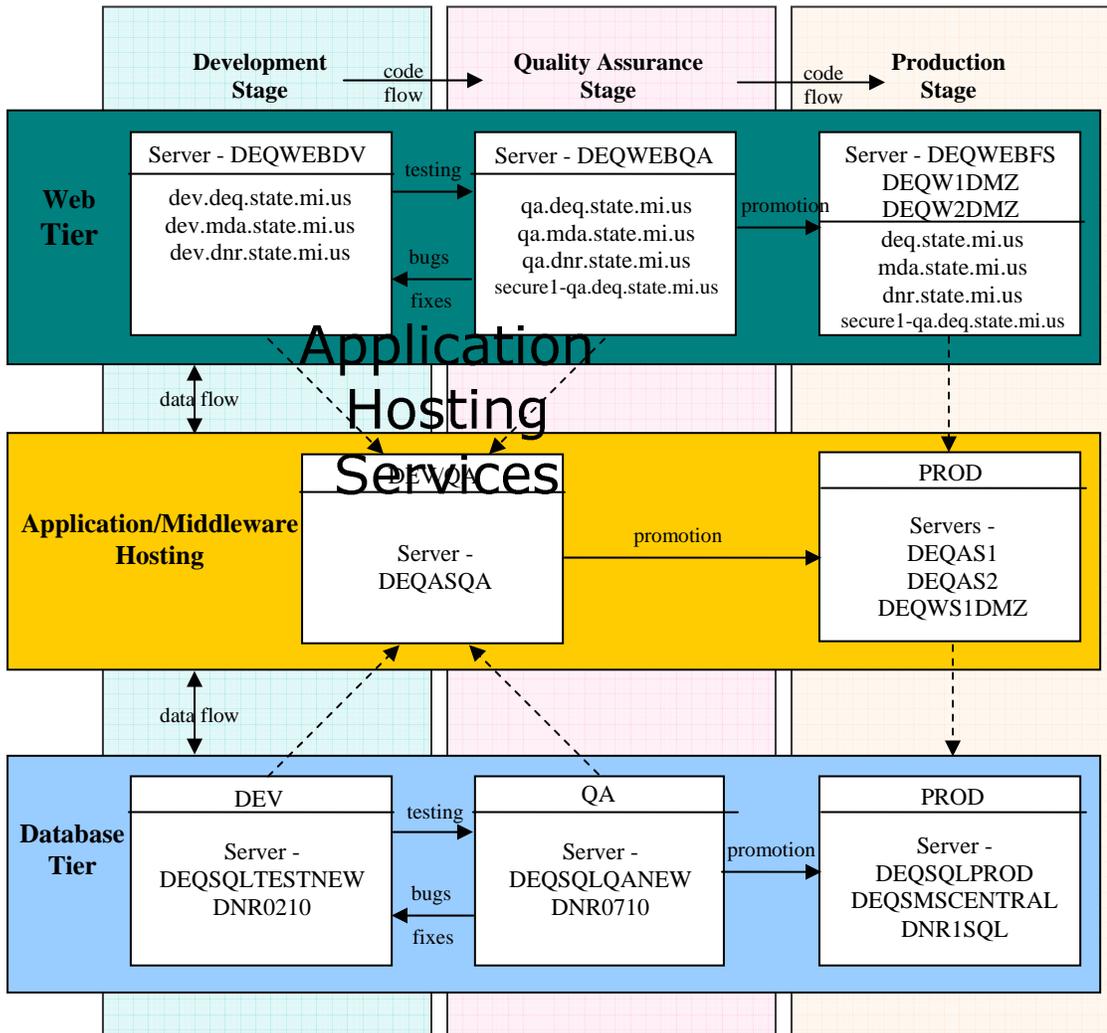
## Application Development

Application development in the consolidated hosting environment consists of a three stage lifecycle approach : Development (DEV), Quality Assurance (QA), and Production (PROD). The DEV stage consists of the actual development and testing of the application by the developer. New or enhanced web applications should be developed on the developer's environment and/or the shared development web server (WEBDV). Similarly, a local desktop database or SQLTEST database server should be utilized while developing software applications that require database functions.

Once applications and associated databases are stable and ready for customer acceptance testing, they should be repackaged and submitted for installation on the QA environment. The QA stage should be for customer acceptance testing. Any changes or bugs found in the QA stage should return the application to the DEV stage until the fixes are ready to be tested in QA. After final acceptance testing, requested software applications are then submitted for installation to a PROD environment.



# Application Development Logical Code & Data Flow





## Hosting Services

The consolidated hosting environment utilizes a Microsoft Windows 2000-based Hosting Solution running on multiple Intel-based processors. This hosting solution includes centralized management, monitoring/reporting, patch management as well as web, middleware, and database hosting services.

Centralized Management	Provides one point of contact for web, middleware and database services. Centrally managed users, accounts, servers, applications, services and security. Developers are not given access to QA or production servers.
Monitoring and Reporting	Tools are available to proactively monitor both internal and external operations.
Patch Management	Centralizes and simplifies the process of performing software and security updates. All critical patches related to the operating system are installed without notification; however, major service packs are planned and communicated with all software application owners.
Data Hosting Services (DEV, QA, PROD Environments)	Enables you to Develop, QA, and power your Production web sites and client/server applications with a reliable database environment.
Middleware Hosting Services (QA and PROD Environments)	Enables you to Test as well as power your Production applications and client/server systems with a centralized middleware environment.
Web Hosting Services (DEV, QA, and PROD Environments)	Enables a variety of Development, QA, and Production hosted Web services (e.g. basic dedicated mail, ASP applications, FTP Applications, .NET applications).
Clustered Hosting Environment (PROD Environment)	Gives Production applications greater uptime thanks to load balancing and NLB clustering.

The database, middleware, and web hosting teams work closely with the infrastructure team (commonly known as the server Team) for File/Print Services, Email Services, Backup Solutions, and Patch Management Solutions.

### Related Services

Backup Services – are coordinated with the local Server Team.  
 File Services – are coordinated with the local Server Team.  
 Print Services – are coordinated with the local Server Team.  
 Network Services – are coordinated with the local Server Team.  
 GroupWise Services – are coordinated with the local Server Team.

SMTP Email Services – are coordinated with the DIT Telecom Team.  
 DNS Naming Services – are coordinated with the DIT Telecom Team.

## Web Hosting Services

- All web servers are dual or quad processor Dell PowerEdge servers.
- Windows 2000 or Advanced Servers running IIS 5.0 web server.
- Windows 2003 Servers running IIS 6.0 web server.
- The Internet production web servers are clustered with a network load balancing switch.
- All web servers are patched within 3 days of new Microsoft critical security patches.

### Currently Supported Web Technologies and Third-Party Software

- Active Server Pages 2.0 (ASP)
- ActivePDF Server / WebGrabber 3.5.2 SP5
- Component Services (COM+)
- ESRI ArcIMS Web Components (*ActiveX and Java Connectors*)
- File Transfer Protocol (FTP) Services
- Java Servlet Pages (JSP) (*utilizing JRun4 Proxy connector to JRun4 Application Server*)
- JRE 1.4.0
- HTTP 1.0, 1.1 (*host headers utilized*)
- MDAC 2.7 SP2
- MSXML 2.6SP3, 3.0SP4 and 4.0SP2
- .NET Framework 1.0, 1.1, 2.0
- Secure Socket Layer (SSL)
- Server Side Includes (SHTML)
- Simple Mail Transfer Protocol (SMTP) Services
- Symantec Anti-virus corporate edition
- Web Services Enhancements (WSE) 1.0 SP1 for .NET

Please contact the [Web Services Team](#) if additional technologies or services are needed, as well as any specific memory or storage space requirements.

### Current Web Server Breakdown

FTPDMZ	Dedicated Production Internet FTP server
WS1DMZ	Dedicated Production Internet Web Services server for stand alone applications and non-clustered web services
WWWDMZ	Consolidated load balanced internet Web Servers (W1DMZ, W2DMZ)
WEBFS	Dedicated Production Staging Web Server for Automated Batch Processing, Web Application Management, and Pre-Production Application Staging.
WEBQA	Dedicated Quality Assurance Testing Web Server for intranet and Internet Applications
WEBDV	Dedicated Development Web Server for intranet and Internet Applications



## Application / Middleware Hosting Services

- All middleware servers are dual or single processor Dell PowerEdge servers.
- All middleware servers are Windows 2000 Advanced Server.
- All middleware servers are patched within 3 days of new Microsoft critical security patches.

### Currently Supported Middleware Technologies and Third-party Software

- Component Services (COM+)
- ESRI ArcIMS 4.0
- ESRI License Manager
- JRun4 Application Server
- JRE 1.4.0
- MDAC 2.7 SP2
- Rockworks License Manager

Please contact the [Web Services Team](#) if additional technologies or services are needed, as well as any specific memory or storage space requirements.

### Current Middleware Server Breakdown

AS1	Shared Dual-Processor Production Middleware Application Server
AS2	Shared Single-Processor Production Middleware Application Server
ASQA	Dedicated Development and Quality Assurance Testing Server



## Database Hosting Services

- All database servers are single, dual or quad processor Dell PowerEdge servers.
- All\* database servers are Windows 2000 Server or Advanced Server running Cluster Services.
- Both SQLPRD and SQLDMZ production database servers are designed for high availability and utilize Windows Cluster Service.

### Currently Supported Database Technologies and Third-party Software

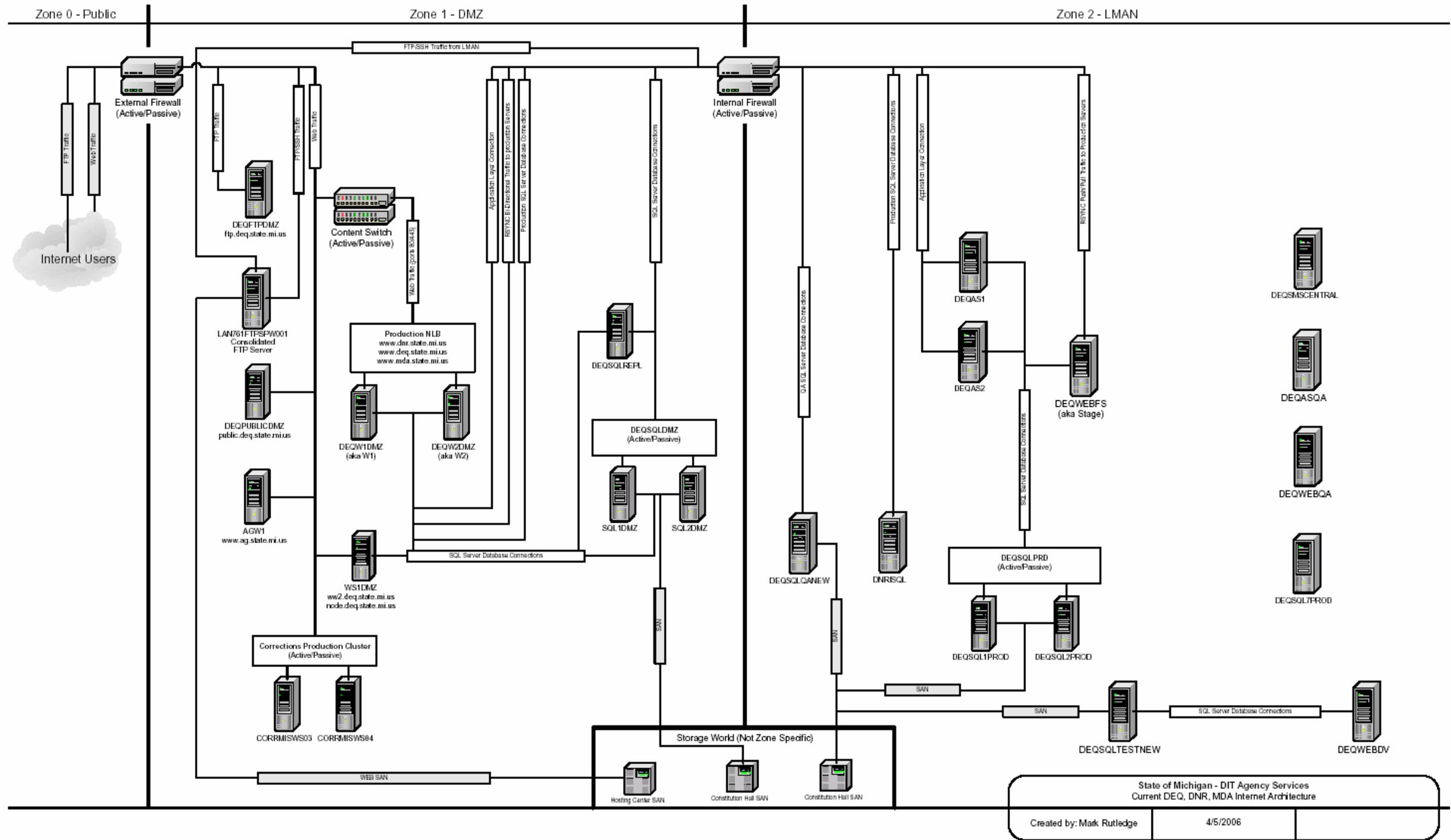
- SQL Server 2000 SP4
- SQL Server 7.0

### Current Database Server Breakdown

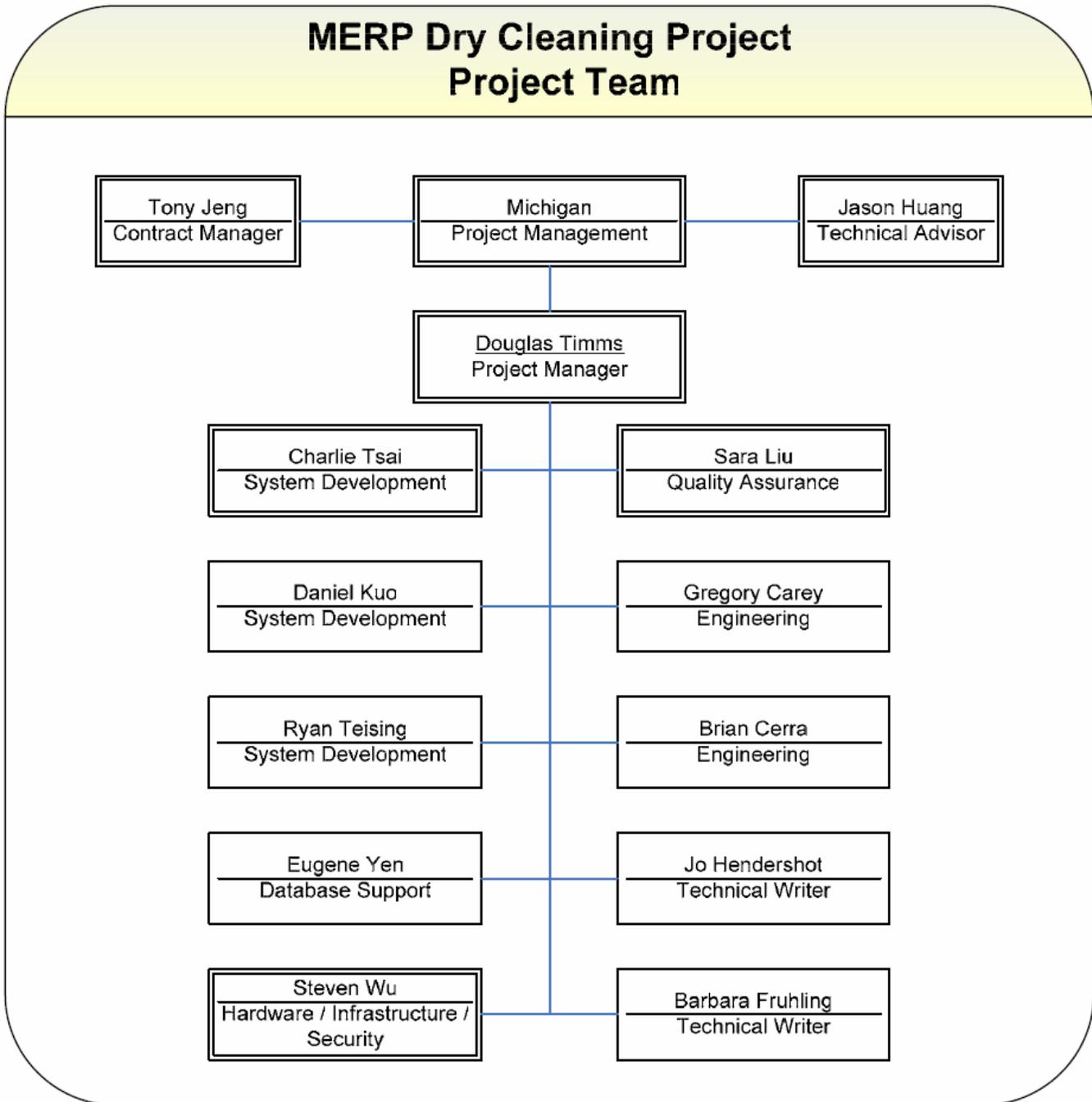
SQLPRD	Consolidated Production Cluster Services intranet SQL server (SQL1PRD, SQL2PRD)
SQLDMZ	Consolidated Production Cluster Services Internet SQL server (SQL1DMZ, SQL2DMZ)
SQLQANEW	Dedicated Quality Assurance SQL database server
SQLTESTNEW	Dedicated Development/Testing SQL database server
SMSCENTRAL	Dedicated Production SQL server for SMS
DNR50710	Dedicated Quality Assurance SQL database server
DNR50210	Dedicated Development/Testing SQL database server
DNR50810	Dedicated Production SQL server
SQL7PROD	* Deprecated SQL 7.0 server for legacy application
SQLQA	* Deprecated SQL 6.5 server for legacy application

### Intranet Hosting

Please see the "Intranet Hosting Environment" document for an overview of the intranet hosting environment.



**Attachment A**  
Sample Organizational Chart, including Key Personnel



KEY PERSONNEL Consists of

<p><b>Douglass Timms</b>  <b>Ryan Teising</b>  <b>Gregory Carey</b>  <b>Brian Cerra</b>  <b>Charlie Tsai</b></p>	<p><b>Eugene Yen</b>  <b>Jason. Huang,</b>  <b>Tony . Jeng</b>  <b>Daniel Kuo</b>  <b>Sara Liu</b></p>
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## Description of Contractor Roles

### Contract Manager:

The contract manager will provide contracting support to successfully complete the requirements for the Dry Cleaning Project. He will work closely with the Michigan DIT/DEQ project manager and (contractor's Project Manager) to ensure that the project is completed on time, within budget, and will meet the users' expectations.

### Technical Advisor:

The technical advisor will provide environmental domain knowledge and IT expertise for project activities that require technical guidance for the Dry Cleaning development.

### Project Manager:

The Project Manager will be the key point-of-contact between the Contractor's team and the MERP Dry Cleaning team. The Project Manager will be responsible for ensuring that project deliverables are completed on time and within budget. The Project Manager will be responsible for coordinating the project team and project schedules and will contribute heavily to the completion of project tasks.

### Engineering:

The Engineering staff will confirm/develop the functional requirements and design specification documents for the Dry Cleaning project. They will also provide development testing and user system supports.

### System Development:

Will be the main developers for the Dry Cleaning system and will participate in Dry Cleaning system design.

### Database:

Will provide SQL Server database administration and support.

### Quality Assurance:

Will establish and execute QA audit plans for the Dry Cleaning project.

### Hardware / Infrastructure / Security:

Will provide expertise for hardware, networking, security, and installation support for the Dry Cleaning project.

### Technical Writer:

The Technical Writer will provide support for the development of system documentation and administrative services.



A general overview of the resources assigned to each functional area for the Dry Cleaning Project are provided below:

<b>Functional Area</b>	<b>Resources</b>	<b>Responsibility and Services</b>
❖ Contract Manager	1 administrator	Provide contracting support
❖ Technical Advisor	1 administrator	Provide environmental domain knowledge and IT expertise to the MERP Dry Cleaning project
❖ Project Manager	1 senior engineer	Responsible for project coordination and ensuring that project deliverables are completed on time and within budget
❖ Engineering	2 senior engineers	Requirement specifications, system design, testing, and documentation
❖ System Development	3 senior developers	System functions development
❖ Database	1 DBA	DBA for SQL Server
❖ Quality Assurance	1 QA specialists	Product quality assurance
❖ Hardware/ Infrastructure/ Security	1 system specialist	System integration, installation, security, and hardware/infrastructure support
❖ Technical Writer	2 tech writers	Provide support for the development of system documentations

## Attachment B Tasks and Deliverables

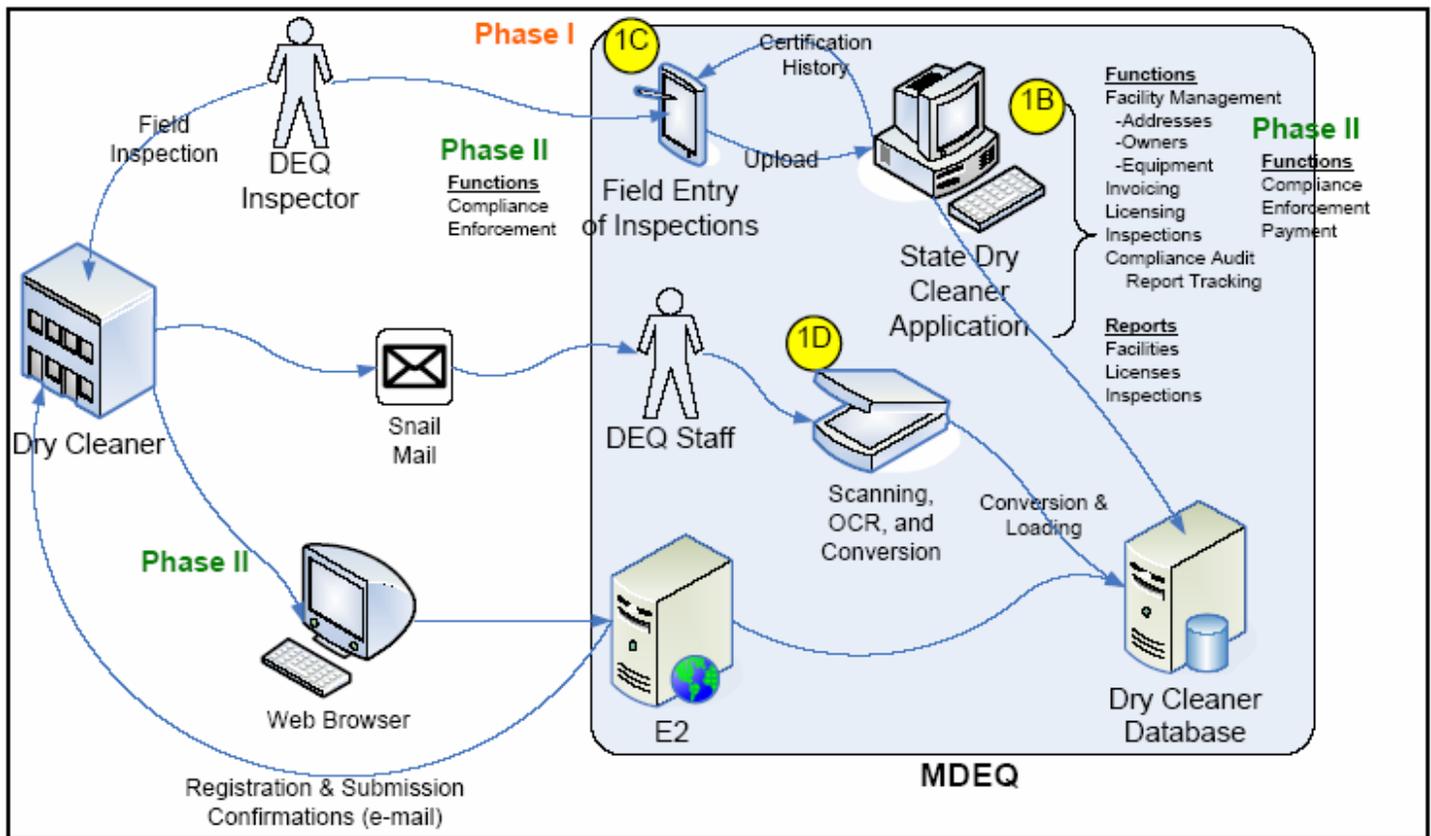
The contractor will implement a 5-stage technical approach for Phase I and a 5-stage technical approach for Phase II of the Dry Cleaning project. Each stage is designed to achieve specific objectives with certain deliverables. In general, the project will consist of the following stages:

### Phase I

- (1A) Project Management
- (1B) Database and System Development
- (1C) Development & Implementation of **Customized Field Inspection Program**
- (1D) Paper Form Scanning, Extraction, and Import
- (1E) Support & Maintenance

### Phase II

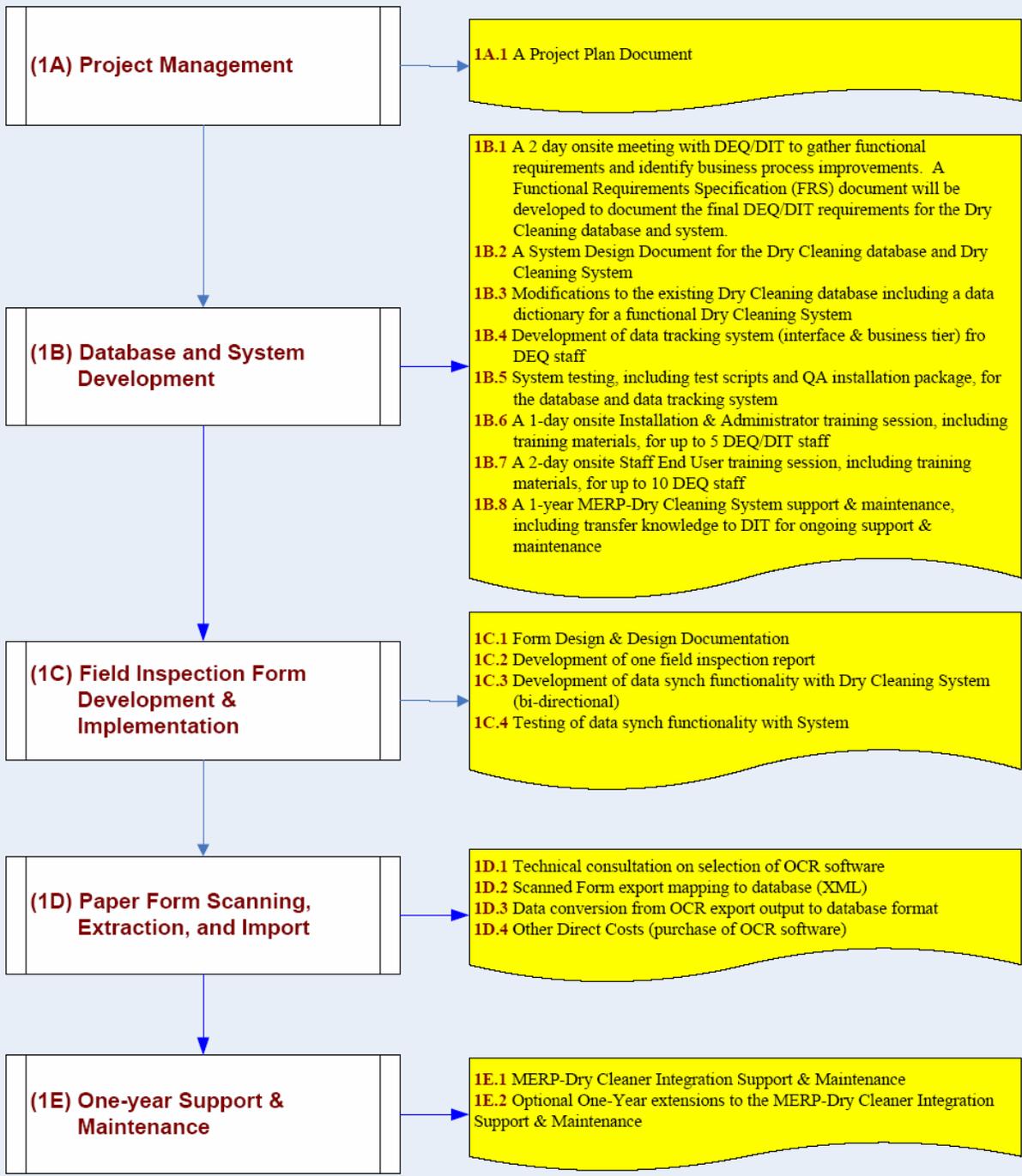
- (2A) Project Management
- (2B) Dry Cleaning System – Compliance & Enforcement Module Development
- (2C) XML-based Data Collection System and Compliance & Enforcement Enhancements
- (2D) Field Inspection Compliance & Enforcement Development
- (2E) Support & Maintenance



*Dry Cleaning Sector Project Overview*

**MERP for the Dry Cleaning Sector Project  
PHASE I: Tasks & Deliverables (draft)**

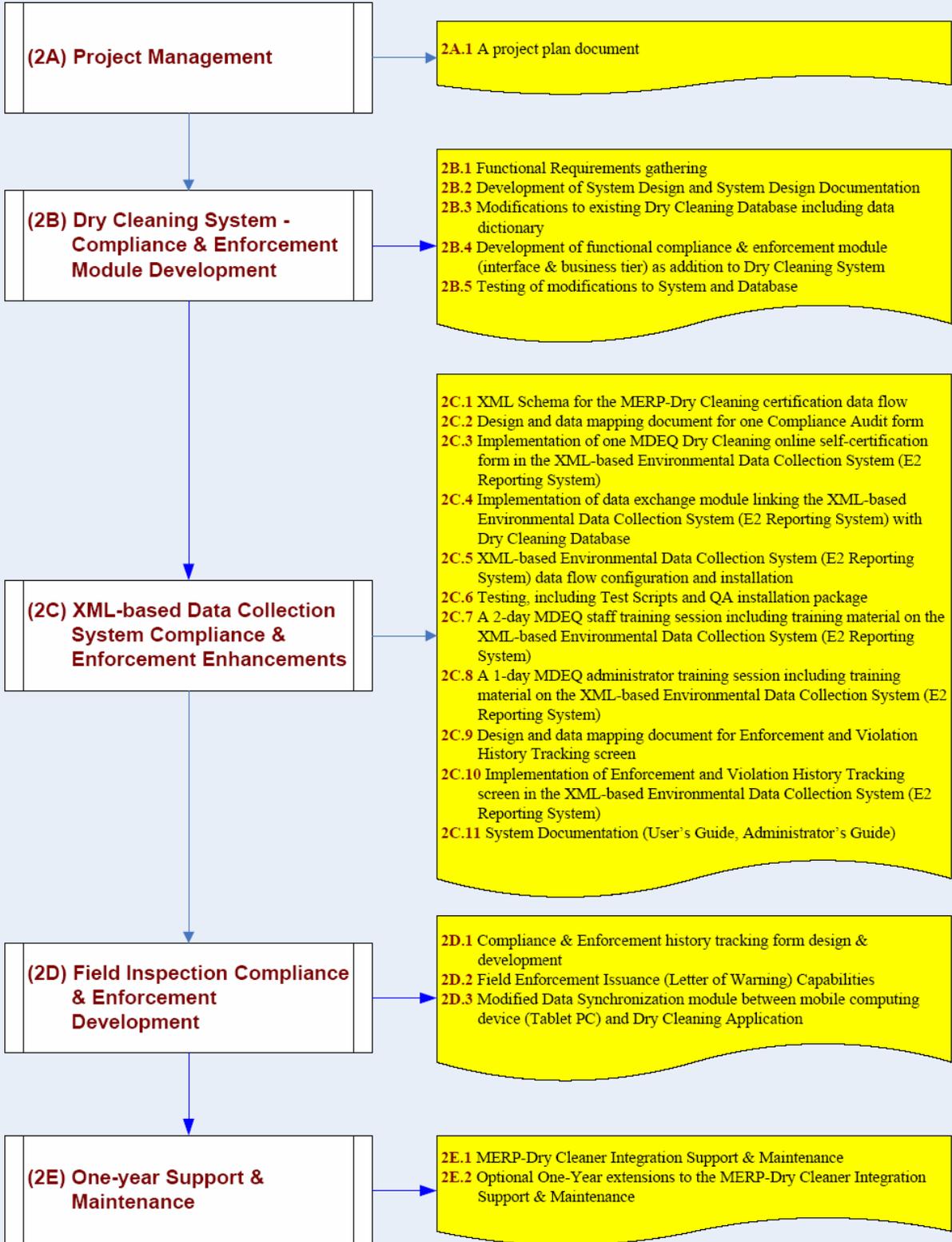
**LEGEND:**  
 Task  
 Deliverable



**MERP for the Dry Cleaning Sector Project  
PHASE II: Tasks & Deliverables (draft)**

**OPTIONAL**

**LEGEND:**  
 Task  
 Deliverable



## Attachment C Sample Project Plan

Michigan DEQ: MERP Dry Cleaner Project					
ID	Task Name	Duration	Start	Finish	00   Qtr 2, 2005   Qtr 3, 2005   Qtr 4, 2005   Qtr 1, 2006   Qtr 2, 2006   Qtr 3, 2006   Qtr 4, 2006   Qtr 1, 2007   Qtr 2, 2007   Qtr 3, 2007   Qtr 4, 2007
1	<b>Phase I</b>	<b>628 days</b>	<b>Mon 4/24/06</b>	<b>Wed 9/17/08</b>	▶
2	<b>(1A) Project Management</b>	<b>16 days</b>	<b>Mon 4/24/06</b>	<b>Mon 5/15/06</b>	▶
3	1-day Project Kickoff Meeting	1 day	Mon 4/24/06	Mon 4/24/06	▶
4	1A.1 A Project Plan Document	15 days	Tue 4/25/06	Mon 5/15/06	▶
5	<b>(1B) Database and System Development</b>	<b>90 days</b>	<b>Tue 5/16/06</b>	<b>Mon 9/18/06</b>	▶
6	1B.1 Functional Requirements Gathering	27 days	Tue 5/16/06	Wed 6/21/06	▶
7	1B.2 Development of System Design and Design Documentation	25 days	Thu 6/22/06	Wed 7/26/06	▶
8	1B.3 Modifications to existing Dry Cleaning Database including data dictionary for a functional Dry Cleaning System	15 days	Thu 7/27/06	Wed 8/16/06	▶
9	1B.4 Development of data tracking system (interface & business tier) for MDEQ staff	25 days	Thu 7/27/06	Wed 8/30/06	▶
10	1B.5 Testing of the System and enhancements to the Database	10 days	Thu 8/31/06	Wed 9/13/06	▶
11	1B.6 Installation & Admin Training (1 day training covering configuration & administration)	1 day	Thu 9/14/06	Thu 9/14/06	▶
12	1B.7 MDEQ Staff End User Training for Dry Cleaning Data Tracking System	2 days	Fri 9/15/06	Mon 9/18/06	▶
13	1B.8 One-year MERP-Dry Cleaning System support & maintenance and transfer knowledge to DIT for ongoing support and maintenance	0 days	Mon 9/18/06	Mon 9/18/06	▶
14	<b>(1C) Field Inspection Form Development &amp; Implementation</b>	<b>72 days</b>	<b>Tue 6/6/06</b>	<b>Wed 9/13/06</b>	▶
15	1C.1 Form Design & Design Documentation	20 days	Tue 6/6/06	Mon 7/3/06	▶
16	1C.2 Development of one field inspection report	20 days	Tue 7/4/06	Mon 7/31/06	▶
17	1C.3 Development of data synch functionality with Dry Cleaning System (bi-directional)	25 days	Tue 7/4/06	Mon 8/7/06	▶
18	1C.4 Testing of data synch functionality with System	10 days	Thu 8/31/06	Wed 9/13/06	▶
19	<b>(1D) Paper Form Scanning, Extraction, and Import</b>	<b>82 days</b>	<b>Tue 5/16/06</b>	<b>Wed 9/6/06</b>	▶
20	1D.1 Technical consultation on selection of OCR software	15 days	Tue 5/16/06	Mon 6/5/06	▶
21	1D.2 Scanned Form export mapping to database (XML)	15 days	Tue 7/18/06	Mon 8/7/06	▶
22	1D.3 Data conversion from OCR export output to database format	15 days	Thu 8/17/06	Wed 9/6/06	▶
23	1D.4 Other Direct Costs (OCR Software)	30 days	Tue 6/6/06	Mon 7/17/06	▶
24	<b>(1E) Support &amp; Maintenance</b>	<b>522 days</b>	<b>Tue 9/19/06</b>	<b>Wed 9/17/08</b>	▶
25	1E.1 MERP-Dry Cleaner Integration Support & Maintenance	261 days	Tue 9/19/06	Tue 9/18/07	▶
26	1E.2 Optional One-Year extensions to the MERP-Dry Cleaner Integration Support & Maintenance	261 days	Wed 9/19/07	Wed 9/17/08	▶

**Attachment D**  
Labor Rates

The following rates apply to calendar year 2006 and may be adjusted on January 1 of each subsequent year with State of Michigan acceptance and approval.

**HOURLY RATES**

Charges for additional services provided outside the original project scope and for change management issues within the scope of the project will be charged in accordance with the following schedule:

Classification	Hourly Rate (\$/hour)
Principal Application Consultant	\$ 180
Principal System Consultant	\$ 180
Senior System QA/QC Consultant	\$ 160
Senior Application Consultant	\$ 150
Senior System Consultant	\$ 150
System QA/QC Consultant	\$ 130
Application Consultant	\$ 120
System Consultant	\$ 120
Business Support	\$ 90

**POLICY ON TRAVEL**

In the event it is necessary for contractual staff to travel for this project, prior approval must be obtained by the FSD Project Manager. Additionally, travel charges will only be reimbursed at current state-authorized rates as outlined by DMB guidelines ([http://www.michigan.gov/dmb/1,1607,7-150-9141---, 00.html](http://www.michigan.gov/dmb/1,1607,7-150-9141---,00.html)) and must be accompanied by actual receipts. Travel time will not be reimbursed.



## **Attachment E**

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Violation of the foregoing provisions shall constitute the basis for termination of this license. In addition, Licensor may seek injunctive relief in an appropriate judicial proceeding if Licensee purposely violates the foregoing provisions, it being acknowledged that any such violation may cause irreparable harm to Licensor for which monetary damages may not provide an adequate remedy. Termination of the license and the right to seek injunctive relief shall be in addition to and not in lieu of any other legal or equitable remedies available to Licensor.

**(F) Initial Post-installation Technical Support**

Service and support will be provided only after the Licensee has completed the product registration with Licensor.

Except otherwise specified in a separate contract, Licensor will provide the Licensee with the initial post-installation technical support for 90 days, without additional charge, after the software is successfully installed at the licensee server.

Within thirty (30) days after the software is installation at the Licensee's server, the Licensee shall promptly notify Licensor of any defects or malfunctions in the Licensed Programs of which it learns from any source. Licensor shall correct any such defects or malfunctions discovered during this time period and provide Licensee with corrected copies of same, without additional charge, if, in Licensor's sole discretion, the defects or malfunctions were caused exclusively by Licensor.

**(G) Limited Warranty**

Licensor does not warrant that the operation of the Licensed Programs will be uninterrupted or error free. Licensor shall not be responsible to Licensee for loss of use of the Licensed Programs or for any other liabilities arising from alterations, modifications, enhancements, additions, adjustments or other changes which changes, which have been made to the Licensed Programs or its operating environment by other than authorized representatives of Licensor.

The warranty is contingent upon proper use of the Licensee's hardware and the Licensed Programs and do not cover any portion of the Licensed Program which has been modified without Licensor's approval.

**(H) Limitations of Remedies**



In no event will Licensor be liable for any damages, including any lost profits, or other incidental or consequential damages arising out of the use or performance of such Licensed Programs even if Licensor has been advised of the possibility of such damages.

Licensee agrees that Licensor's liability to the Licensee arising out of contract, negligence, and strict liability in tort or warranty shall not exceed any amounts paid by Licensee for the particular Licensed Programs identified above.

**(I) Assignment; Binding Effect**

Licensee shall not assign, license, sublicense, transfer, pledge, hypothecate or otherwise transfer this license to any other person to use the Licensed Programs without Licensor's prior written consent. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns.

**(J) General**

(a) The Licensee understands the Agreement and agrees to be bound by its terms and further agrees that it is the complete and exclusive statement of the Agreement, which supersedes and merges all prior proposals, understandings and all other agreements, oral and written, between the Licensee and Licensor relating to this Agreement.

(b) This Agreement and performance hereunder shall be governed by and construed in accordance with the laws of Licensee, without regard to any provisions thereof governing conflicts of laws.

(c) The waiver or failure of either party to exercise in any respect any right provided for herein shall not be deemed a waiver of any further rights hereunder.

(d) No action, regardless of form, arising out of this Agreement may be brought by Licensee more than one (1) year after the cause of action has arisen.

(e) Each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under applicable law. If any provision of this Agreement is declared void, such provision shall be deemed severed from this Agreement, which shall otherwise remain in full force and effect.

**Schedule A:**

**LICENSED PROGRAM:**

1. E2 (for the Phase II MERP Project) OPTIONAL PHASE

**Attachment F**  
Pricing

<b>PHASE I Deliverables</b>	<b>Cost</b>
<b>(1A) Project Management</b>	
1. Develop Project Plan Document that will include the following: <ul style="list-style-type: none"> <li>▪ Project Overview</li> <li>▪ Project Tasks and Descriptions</li> <li>▪ Project Timeline</li> <li>▪ Project Organization: Roles and Responsibilities</li> <li>▪ Communication Procedures</li> </ul>	<b>\$ 7,040</b>
<b>Total Cost for Part 1A</b>	<b>\$ 7,040</b>
<b>(1B) Dry Cleaning Tracking Database &amp; System Development</b>	
(1) Functional Requirements gathering	\$ 5,900
(2) Development of System Design and System Design Documentation	\$ 6,000
(3) Modifications to existing Dry Cleaning Database including data dictionary for a functional Dry Cleaning System	\$ 6,480
(4) Development of data tracking system (interface & business tier) for MDEQ staff	\$ 24,360
(5) Testing of the System and enhancements to the Database	\$ 3,120
(6) Installation & Admin Training (1 day training covering configuration & administration)	\$ 3,860
(7) MDEQ Staff End User Training for Dry Cleaning Data Tracking System	\$ 4,150
(8) One-year MERP-Dry Cleaning System support & maintenance and transfer knowledge to DIT for ongoing support and maintenance	\$ N/C*
<b>Total Cost for Part 1B</b>	<b>\$ 53,870</b>
<b>(1C) Development of Customized Field Inspection Program &amp; Implementation</b>	
(1) Form Design & Design Documentation	\$ 4,320
(2) Development of one field inspection report	\$ 19,120
(3) Development of data synch functionality with Dry Cleaning System (bi-directional)	\$ 11,400
(4) Testing of Customized Field Inspection Program	\$ 2,760
(5) Delivery of final inspection forms after testing is completed	\$ N/C
<b>Total Cost for Part 1C</b>	<b>\$ 37,600</b>
<b>(1D) Development of Form Scanning &amp; Extraction</b>	
(1) Technical consultation on selection of OCR software	\$ 4,320
(2) Scanned Form export mapping to database (XML)	\$ 5,160
(3) Data conversion from OCR export output to database format	\$ 7,680
(4) Other Direct Costs	\$ See Below**
<b>Total Cost for Part 1D</b>	<b>\$ 17,160</b>
<b>FINAL PAYMENT</b> – Final Payment will be made in accordance with Section 1.502 Final Acceptance	<b>\$ 6,000</b>
<b>(1E) MERP-Dry Cleaner Integration Support &amp; Maintenance (beginning after final acceptance)</b>	
MERP-Dry Cleaner <b>Integration Support &amp; Maintenance -Yr. 2 (Optional)</b>	<b>\$ 10,500</b>
MERP-Dry Cleaner <b>Integration Support &amp; Maintenance -Yr. 3 (Optional)</b>	<b>\$ 11,025</b>



MERP-Dry Cleaner <b>Integration Support &amp; Maintenance -Yr. 4 (Optional)</b>	<b>\$ 11,576</b>
MERP-Dry Cleaner <b>Integration Support &amp; Maintenance -Yr. 5 (Optional)</b>	<b>\$ 12,155</b>
<b>Total Cost for Part 1E</b>	<b>\$ 45,256</b>
<b>Grand Total For Phase I (Excluding Optional Years 2-5 Maintenance Costs)</b>	<b>\$ 121,670</b>
<b>Grand Total For Phase I (Including Years 2-5 Maintenance Costs)</b>	<b>\$ 166,926</b>

\* In responding to Michigan’s DMB’s price negotiation request dated 1/20/2006, enfoTech is offering no charge on the first year system support & maintenance. This is a \$ 7,800 price reduction from the original cost proposal.

\*\*Contractor expects MDEQ/DIT’s purchase of OCR software to be in the range of \$6,000 - \$12,000 and will work with MDEQ/DIT to assist in software selection as part of Phase ID. Based on initial investigations, enfoTech suggests that the following two vendors be further evaluated during project initiation: Nuance and ABBYY.

<b>PHASE II Deliverables</b>	<b>Cost</b>
<b>(2A) Project Management</b>	
1. Develop Project Plan - A project plan will include the following: <ul style="list-style-type: none"> <li>▪ Project Overview</li> <li>▪ Project Tasks and Descriptions</li> <li>▪ Project Timeline</li> <li>▪ Project Organization: Roles and Responsibilities</li> <li>▪ Communication Procedures</li> </ul>	<b>\$ 7,040</b>
<b>Total Cost for Part 2A</b>	<b>\$ 7,040</b>
<b>(2B) Dry Cleaning System - Compliance &amp; Enforcement Module</b>	
(1) Functional Requirements gathering	\$ 5,900
(2) Development of System Design and System Design Documentation	\$ 6,240
(3) Modifications to existing Dry Cleaning Database including data dictionary	\$ 4,440
(4) Development of functional compliance & enforcement module (interface & business tier) as addition to Dry Cleaning System	\$ 25,500
(5) Testing of modifications to System and Database	\$ 3,900
<b>Total Cost for Part 2B</b>	<b>\$ 45,980</b>
<b>(2C) XML-based Environmental Data Collection System Compliance &amp; Enforcement Enhancements</b>	
(1) XML schema for the MERP-Dry Cleaning certification data flow	\$ 7,200
(2) Design and data mapping document for one Compliance Audit form	\$ 7,200
(3) Implementation of one MDEQ Dry Cleaning online self-certification form in the XML-based Environmental Data Collection System	\$ 36,720
(4) Implementation of data exchange module linking the XML-based Environmental Data Collection System with Dry Cleaning Database	\$ 7,200
(5) XML-based Environmental Data Collection System-Dry Cleaning data flow configuration and installation	\$ 4,210
(6) Testing	\$ 11,640
(7) MDEQ staff training session including training material on the XML-based Environmental Data Collection System	\$ 7,580
(8) MDEQ administrator training session including training material on the XML-based Environmental Data Collection System installation and administration	\$ 5,420
(9) Design and data mapping document for Enforcement and Violation History Tracking screen	\$ 6,240



(10) Implementation of Enforcement and Violation History Tracking screen in the XML-based Environmental Data Collection System	\$ 13,500
(11) System Documentation (User's Guide, Administrator's Guide)	\$ 7,200
<b>Total Cost for Part 2C</b>	<b>\$ 114,110</b>
<b>(2D) Development of Field Inspection Compliance &amp; Enforcement Capabilities</b>	
(1) Compliance & Enforcement history tracking form design & development	\$ 5,620
(2) Field Enforcement Issuance (Letter of Warning) Capabilities	\$ 6,160
(3) Modified Data Synchronization module between mobile computing device (Tablet PC) and Dry Cleaning Application	\$ 5,400
<b>Total Cost for Part 2D</b>	<b>\$ 17,180</b>
<b>FINAL PAYMENT</b> – Final Payment will be made in accordance with Section 1.502 Final Acceptance	<b>\$ 10,000</b>
<b>(2E) One-year MERP-Dry Cleaner Integration Support &amp; Maintenance</b>	
(1) One-year XML-based Environmental Data Collection System and MERP-Dry Cleaning integration support & maintenance	\$ 14,554 *
MERP-Dry Cleaner <b>Integration Support &amp; Maintenance -Yr. 2 (Optional)</b>	\$ 10,281
MERP-Dry Cleaner <b>Integration Support &amp; Maintenance -Yr. 3 (Optional)</b>	\$ 6,045
MERP-Dry Cleaner <b>Integration Support &amp; Maintenance -Yr. 4 (Optional)</b>	\$ 2,112
MERP-Dry Cleaner <b>Integration Support &amp; Maintenance -Yr. 5 (Optional)</b>	\$ 2,112
<b>Total Cost for Part 2E</b>	<b>\$ 35,104</b>
<b>Grand Total For Phase II (Excluding Optional Years 2-5 Maintenance Costs)</b>	<b>\$ 194,310</b>
<b>Grand Total For Phase II (Including Years 2-5 Maintenance Costs)</b>	<b>\$ 229,414</b>
<b>The State of Michigan may as an option select to utilize this Additional Spending Authority at its sole discretion for additional enhancements or modifications not provided for under Phase I or Phase II Deliverables.</b>	<b>\$ 10,000</b>

\* The annual maintenance support fee quoted is for the modules developed for the Phase 2 project. In order to maintain the entire MERP system after the Phase 2 project, the “total” annual maintenance and support fee should include the annual fee quoted for the Phase 1 modules and fee quoted for the Phase 2 modules. For example, the total year 2 support is equal to \$ 20,781 (i.e., \$ 10,500 + \$ 10,281). Similar calculation will apply to fee for the year 3, 4, and 5.

Payments to the Contractor will be made upon the completion and acceptance of each deliverable as outlined in the cost table, not to exceed the contractual costs for that deliverable. Pricing for each deliverable includes Contractor’s travel and incidental expenses. Invoices will be paid on a monthly basis upon acceptance of each deliverable.