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## Request For Proposal (RFP)

<b>RFP No:</b>	2024_RFP0005
<b>Title:</b>	Entomological Surveillance and Molecular Analysis
<b>Issuing Office and Address for Bid Submission:</b>	The PMI Evolve Project Zambia, Plot 73468, Stand Number 5/C Kabulonga Road, Kabulonga, Lusaka. Zambia.
<b>RFP Issuance Date:</b>	September 16, 2024
<b>Question Submitted By:</b>	September 25, 2024
<b>RFP Closing Date:</b>	September 30, 2024
<b>Mode of Submission</b>	Proposals can be submitted electronically to the email below: Email: <a href="mailto:pmi_evolvezambia@abtassoc.com">pmi_evolvezambia@abtassoc.com</a>
<b>Anticipated Type of Award:</b>	Subcontract Agreement
<b>Basis of Award:</b>	See “Evaluation Criteria” section
<b>Funding Agency</b>	United States Agency for International Development (USAID)
<b>Prime Contract Number:</b>	7200AA23C00012
<b>USAID Source / Nationality (Geo) Code:</b>	935
<b>List of Attachments:</b>	<ol style="list-style-type: none"><li>1. Attachment A: Technical Scope of Work</li><li>2. Attachment B: Budget Template and Budget Notes</li><li>3. Attachment C: Prime Contract Mandatory Flow Downs</li><li>4. Attachment D: Abt Standard Terms and Conditions</li><li>5. Attachment E: PMI Evolve Standard Operating Procedures for Cone Bioassay (SOP009-01)</li></ol>



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**About Abt Associates:**

Founded in 1965, Abt Associates Inc., is a mission driven, global leader in research and program implementation in the fields of health, social and environmental policy, and international development.

The U.S. President's Malaria Initiative (PMI) Evolving Vector Control to Fight Malaria Project (PMI Evolve) was awarded to Abt Associates on December 19, 2022. The purpose of this contract is to support PMI, as well as U.S. Agency for International Development (USAID) Missions and Bureaus with the planning, implementing, and monitoring of malaria vector control programs, including entomological monitoring, indoor residual spraying (IRS), insecticide-treated mosquito nets (ITNs), and larval source management (LSM). PMI Evolve will strengthen the capacity of local institutions, including national malaria programs (NMPs), district health offices, and research institutions to independently conduct vector control programs. PMI Evolve is also responsible for program evaluation and conducting operations research on new vector control innovations. PMI Evolve will incorporate gender equity and social inclusion (GESI) and climate change initiatives as cross-cutting themes with the overall goal of ending malaria faster.

PMI Evolve builds on the IRS, ITN, and LSM campaigns and entomological monitoring activities implemented under the previous PMI funded projects. The project works in 21 PMI partner countries (Burkina Faso, Burundi, Cambodia, Cameroon, Cote d'Ivoire, Democratic Republic of Congo, Ethiopia, Ghana, Guinea, Liberia, Madagascar, Malawi, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Togo, Uganda, and Zambia) and will develop options for training or STTA to other non-PMI partner countries.

**Requested Services:**

The PMI Evolve Project in Zambia implemented by Abt Associates Inc. is currently seeking firm, fixed-price deliverables-based bids for entomological monitoring services as described in the Attachment A: Scope of Work.

**Part 1: Instructions to Offerors**

**I. GENERAL INSTRUCTIONS TO OFFERORS**

A. The offeror is requested to submit a proposal directly responsive to the terms, conditions, and clauses of this RFP. Instructions for preparation of the technical proposal are included under Section III. Proposals not responding to each of the requirements under section III may be categorized as unacceptable, thereby eliminating them from further consideration. The offeror may submit questions regarding the RFP and must be submitted by the deadline established in this RFP.

B. Proposals must be received no later than September 30, 2024. Proposals must be signed and remain valid for a minimum of sixty (60) days. The Technical Proposal and Cost Proposal must be kept as separate parts of the total proposal package. Accordingly, the overall proposal shall consist of two (2) physically separated parts, as follows: Volume I – Technical Proposal; and Volume II – Cost Proposal. Technical Proposals must not make reference to pricing.



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- C. Any proposal received in response to this solicitation will be reviewed as submitted and in accordance with the evaluation criteria specified in Part 2 – Evaluation Factors for Award.
- D. The person signing the offeror's proposal must have the authority to commit the offeror to all the provisions of the offeror's proposal.
- E. Abt Associates Inc. is not obligated to make an award or to pay for any costs incurred by the offeror in preparation of a proposal in response hereto.
- F. The Offeror should submit its best proposal initially as Abt intends to evaluate proposals and may make an award without discussions.
- G. Proposals must be clearly and concisely written and must describe and define the offeror's understanding and compliance with the requirements contained in Scope of Work, which can be found in Attachment A: Scope of Work. The proposal should clearly address each of the evaluation factors set forth in Part 2.

## **II. SPECIAL RFQ CONSIDERATIONS**

- A. The anticipated type of contract to be awarded under this solicitation is a Firm Fixed Price, Deliverables-Based Subcontract. For the purposes of cost analysis, offerors must prepare a detailed budget in accordance with Subpart IV below "Instructions for the Preparation of the Cost Proposal."
- B. Offerors are informed that by submitting a response to this Request for Quote, they agree to abide by the Terms and Conditions included in Attachment C of this solicitation.
- C. Offerors are informed that Abt Associates Inc. complies with U.S. Executive Order #13224 on Terrorist Financing, which effectively prohibits transactions with persons who commit, threaten to commit or support terrorism. Any person or entity that participates in this procurement process, either as a prime or sub to the prime, must certify as part of the proposal that it is not on the U.S. Department of Treasury Office of Foreign Assets Control (OFAC) Specially Designated Nationals (SDN) List and is eligible to participate. Any proposal received by a person or entity that is found to be on the List or otherwise ineligible will be disqualified.

## **III. INSTRUCTIONS FOR THE PREPARATION OF THE TECHNICAL PROPOSAL**

- A. The Technical Proposal should provide a straightforward, concise delineation of how the offeror intends to carry out and satisfy the requirements of the Scope of Work described in Attachment A: Scope of Work. No price information is to be included in the offeror's technical proposal in order that it may be evaluated only on its technical merit.
- B. Technical proposals shall be limited to 1 (one) page per section or a maximum of 4 (four) pages.
- C. Drawing from relevant experience, the offeror shall demonstrate its understanding, ability and overall approach to performing the requirements described in the Scope of



Work. Anticipated challenges and potential opportunities to enrich the program should be addressed throughout the response. Specifically, the offeror must include the following sections in its technical proposal:

1. Key Personnel and Technical Points of Contact: Name key contractual and technical personnel assigned to carry out the scope of work and include CVs for each. The named points of contact for technical personnel should be the person carrying out the work and should include: the Project Manager, The Entomology Technician and Insectary Technician points of contact. Please indicate years of experience and degrees per each named individual.
2. Program Management: Provide a description of offeror's management approach for this program, including management structure and proposed personnel levels of effort (LOE). Clarify the capabilities of identified staff as tied to the competencies needed under this RFQ.
3. Proposed Methods and Data Management: Provide a description of offeror's approach to collecting necessary information and managing the data collected to achieve the scope of work and deliverables listed in Attachment A.
4. Communication and Collaboration: Describe the offeror's plan for communication and collaboration with Abt Associates to meet requested deliverable due dates and quality expectations.

#### IV. INSTRUCTIONS FOR THE PREPARATION OF THE COST PROPOSAL

- A. The Offeror must propose costs that it believes are realistic and reasonable for the work in accordance with the Offeror's technical approach.
- B. The Offeror shall provide a complete budget by the cost elements described below using Attachment B: Budget Template format in Microsoft Excel. **The Offeror shall also provide a Cost Narrative or Budget Notes** further explaining the methodology for achieving the unit and total costs for each line item.
- C. Costs shall be presented in local currency and in US Dollars.
- D. All cost and financial data should be fully supported and organized in a manner that facilitates review and permits cost analysis.
- E. The cost and financial data shall include the following information/data (if applicable):
  1. Direct Employee Salaries – List each employee name, position and duration of assignment (in terms of person days and percent LOE). The daily salary of an employee is that individual's basic compensation exclusive of fringe benefits, travel incentives, housing allowances, differentials, and/or other bonuses.
  2. Allowances – Describe any allowance paid directly by your company on behalf of an employee/position.
  3. Consultants – List consultant name, position and duration of the assignment (in terms of person days) and daily rate
  4. Travel, Transportation & Per Diem – Provide the number of trips, destination, purpose and cost by traveler. The proposal shall specify, for each



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traveler the itinerary, in terms of points of origin/destination and the estimated air fares, and any ground transportation (e.g., taxi) costs. Offerors shall budget per diem associated with travel and transportation not to exceed the official U.S State Departments per diem rates. These rates can be found at:

[http://aoprals.state.gov/web920/per\\_diem\\_action.asp?MenuHide=1&CountryCode=1227](http://aoprals.state.gov/web920/per_diem_action.asp?MenuHide=1&CountryCode=1227)

Where possible, bidders are encouraged to propose reduced per diems.

5. Other Direct Costs – Itemize and provide complete details of other direct costs, including unit prices, that may be incurred. Please attach documentation of price reasonableness via market research or past spending to justify any costs over \$500 for total line-item value.

6. Indirect Costs - Only if intending to charge indirect costs—please provide audited financial statements, which will be used to justify the proposed indirect rate. Describe the allocation method and base used. The detailed budget breakdown shall be structured and formatted to clearly and easily identify the rate(s) applied, the base of calculation and the resulting dollar amount.

Please note that the offeror may be asked to verify/substantiate the proposed costs.

Please be aware that any awardee that is classified as a parastatal organization (one owned or controlled by a government – see ADS 302.3.3 for more information) will need additional approval from Abt’s client in order to obtain an award. Such organizations will not be able to charge indirect costs.

## **Part 2: Evaluation Factors for Award**

### **I. GENERAL – PROPOSAL EVALUATION**

A. Proposals received in response to this RFQ will be evaluated using a “best value: methodology using the evaluation factors set forth in Part 2 Section III of this RFQ.

B. Part 1 provides guidance to offerors concerning the documentation necessary to conduct an informed evaluation of each proposal. The Offeror must furnish adequate and specific information in its proposal. A proposal may be eliminated from further consideration before a detailed evaluation is performed if the proposal is considered deficient, unacceptable, or unreasonable in which prices are inordinately high or unrealistically low. In the event a proposal is rejected, the Offeror will be sent a notice stating the reason(s) that the proposal will not be considered for further evaluation.

C. In conducting its evaluation of proposals, Abt may seek information from any source it deems appropriate to obtain or validate information regarding an Offeror’s past performance.



D. Abt reserves the right to award one or more contracts under this RFQ on the basis of initial offers without discussions or without establishing a competitive range.

## **II. BASIS FOR CONTRACT AWARD**

A. The criteria presented below will serve as the basis upon which proposals will be evaluated. The relative weight accorded to each factor is expressed in points with 100 points possible.

B. Offerors are reminded that Abt is not obliged to award a contract on the basis of lowest proposed cost or highest technical evaluation score. Although for this procurement technical proposal merits are considered more important than cost relative to deciding that might best perform the work, cost factors and Abt's budget must also be considered. Therefore, after the final evaluation of proposals, Abt will make the award to the Offeror whose proposal offers the best value for money, considering both technical and cost factors.

## **III. EVALUATION FACTORS**

A. Technical Approach (30 points).

For each collection and analysis method proposed, the offeror should provide detailed descriptions of the approach as outlined in Part 1 Section III of this RFQ. A description of the offeror's plan for managing the data collections should also be included.

B. Key Personnel and Staffing (25 points)

Key personnel and technical staff should be named and their CVs included in the proposal (CVs will not be counted toward the 4-page limit).

C. Management Approach (20 points)

Offerors should describe their work management system (organigram) and their staff capacity to lead the activities. They should show their collaborative status with PMI Evolve staff and/or other stakeholders

D. Communication and Collaboration (25 points)

Offerors should describe the plan for regular meeting, communication and collaboration with Abt Associates.

E. Cost Proposal (evaluated separately)

Cost Proposals will be evaluated for reasonableness and responsiveness to the solicitation requirements.



## Attachment A: Scope of Work

### 1. Introduction/Overview

The U.S. President's Malaria Initiative (PMI) Evolving Vector Control to Fight Malaria Project (PMI Evolve) was awarded to Abt Associates on December 19, 2022. The purpose of this contract is to support PMI, as well as U.S. Agency for International Development (USAID) Missions and Bureaus with the planning, implementing, and monitoring of malaria vector control programs, including entomological monitoring, indoor residual spraying (IRS), insecticide-treated mosquito nets (ITNs), and larval source management (LSM). PMI Evolve will strengthen the capacity of local institutions, including national malaria programs (NMPs), district health offices, and research institutions to independently conduct vector control programs. PMI Evolve is also responsible for program evaluation and conducting operations research on new vector control innovations. PMI Evolve will incorporate gender equity and social inclusion (GESI) and climate change initiatives as cross-cutting themes to end malaria faster.

PMI Evolve builds on the IRS, ITN, and LSM campaigns and entomological monitoring activities implemented under the previous PMI funded projects. The project will continue its work in 21 PMI partner countries (Burkina Faso, Burundi, Cambodia, Cameroon, Cote d'Ivoire, Democratic Republic of Congo, Ethiopia, Ghana, Guinea, Liberia, Madagascar, Malawi, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Togo, Uganda, and Zambia) and will develop options for training or STTA to other non-PMI partner countries.

### 2. Background

Zambia implements indoor residual spraying (IRS) and insecticide-treated net (ITN) distribution as its main malaria vector control interventions. In support of the National Malaria Elimination Program (NMEP) of the Ministry of Health, the U.S. President's Malaria Initiative (PMI) Evolve Project, funded by the U.S. Agency for International Development (USAID) and implemented by Abt Associates, will conduct IRS campaign across 12 districts in Luapula and Eastern provinces from September to November 2024. In addition, the Project will conduct entomological monitoring activities including vector surveillance, insecticide resistance monitoring and monitoring of residual efficacy of insecticides on walls after IRS to support malaria vector control decision making. Entomological monitoring is now considered a necessary tool in the fight against malaria and is on the list of malaria intervention packages for each malaria transmission stratum in the current Zambia National Malaria Elimination Strategic plan 2022-2026.

As part of the global strategy, PMI Evolve plans to strengthen the capacity of local institutions to independently conduct vector control programs including entomological monitoring.

### 3. Scope of Work

As part of local capacity strengthening mandate, PMI Evolve Zambia project is seeking a local partner to monitor the residual efficacy of IRS insecticides on walls in Nchelenge District, Luapula Province during the 2025/2026 project period.

Residual efficacy will be monitored by cone bioassays with a susceptible *Anopheles* species colony (preferably *An. gambiae* s.s.). This is needed to determine the longevity of the insecticide on the walls after IRS. The information from this activity will be used by the Zambia National Malaria Elimination Program (NMEP) to make important vector control decisions including strategies for the deployment of IRS and ITNs.

The requested work includes the following:

Monitoring the residual efficacy of the insecticides used during the 2025 IRS campaign. This will be implemented in Nchelenge district in Luapula Province. Selected houses will be visited once a month to conduct cone bioassays from October 2025 to March 2026. The cone assays will be done in six sprayed houses and two unsprayed houses/surfaces (representing wall types of the sprayed houses) as controls in Mutono Village, Nchelenge District. These houses will be selected by PMI Evolve. All the assays will be conducted in a single morning not later than 10 hrs, in the morning. Cone assays will need to be conducted following PMI Evolve standard operating procedures for cone bioassay SOP 009/01 (See attachment E).

They will use Evolve standard to supply susceptible *An. gambiae* strain (preferably the Kisumu strain), for use in the cone bioassays, which are maintained in a standard insectary. An established insectary with a colony of a susceptible *An. gambiae* strain is a requirement for this SOW. A history of the maintenance of the colony will be required in the proposal including the location of the insectary or insectaries, mosquito rearing environmental conditions, how and when the colony is assessed for both species and susceptibility verification and the insectary output.

The contractor will collect information on mosquito species tested, GPS, household, wall type, test and holding temperature and humidity, and knockdown/mortality counts as per PMI Evolve standard protocols for the test method used. All information collected will be promptly entered in standard data forms (or mobile data entry devices).

PMI Evolve will visit the location of the subcontractor's insectary that will be the source of the mosquitoes that will be used for the cone bioassay and will observe at least three cone bioassays during the performance period.

#### **4. Data Management**

The PMI Evolve project uses standardized data collection, data management and analytical approaches to manage entomological data collection and analysis in alignment with technical standard operating procedures and country vector control priorities. This may include vector bionomics, human behavior observation (HBO), residual efficacy, insecticide resistance, and molecular data. PMI Evolve manages entomological data within the project's DHIS2-based VectorLink Collect system.

Regarding residual efficacy data management, the offeror's Entomology Lead and Database Manager will ensure consistent use of mobile-based data collection tools, technical reviews, data entry processes, data cleaning approaches, and robust analytics, to support the generation and use of high-quality entomological data. VectorLink Collect will be used for standardized reporting and customized analytical



requirements, including support for advanced or ad hoc analyses. The offeror is expected to use the provided data collection tools and adopt PMI Evolve standard data management processes.

PMI Evolve Zambia plans to deploy mobile data collection using the DHIS2 Android Application for the residual efficacy data. The PMI Evolve Entomology MEL Specialist will facilitate training sessions with field technicians, ensure proper use of mobile devices, and monitor ongoing mobile data collection. The PMI Evolve Zambia workplan will include costs for appropriate Android mobile devices for this use. The offeror's database manager should attend all scheduled PMI Evolve meetings in preparation for delivery deadlines. If the database manager is unavailable due to leave or other assignment, the offeror is responsible for assigning the coordination to a competent alternate staff member.

The offeror's Database Manager will communicate regularly with the PMI Evolve MEL Specialist to conduct monthly data quality checks and troubleshooting, reporting, and representation of collated data as may be required by the project team, stakeholders, and the PMI Mission. The offeror will be prepared to accept spot checks on preliminary data.

## **5. Management & Staffing**

To ensure good coordination of the scope of the work above, Abt Associates expects the offeror will have regular, internal meetings organized by the offeror. This meeting should be attended by members of both teams to review protocols, results obtained and address technical issues when necessary as well as to discuss progress, results, reporting and to plan future activities. Please describe your plans for internal review meetings.

The offeror shall furnish technical personnel to oversee the work described in the scope of work. Please provide a staff listing in the format below of everyone included in the offeror's budget, the proposed personnel levels of effort (LOE) and contact information. If there are multiple personnel for different elements such as technical personnel, molecular personnel, data management personnel, financial personnel, etc., that should also be clear.

The offeror should specify who the key personnel are for this work. For all designated key personnel, the offeror shall provide written notification within a reasonable amount of time of the proposed change or hiring of any key technical personnel staffing and a plan for replacing the named personnel, including the name and background of the proposed substitution.

The offeror should include an organogram and a table summarizing the staff who will manage and implement the work and the level of effort (LOE). See below example. Please adjust personnel titles to reflect your organization staff that will be working on the project. Please provide a brief narrative summary describing each of the roles you have specified and their responsibilities for carrying out this scope of work, to complement the roles and key personnel summarized below.



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Personnel Titles	Name	Email	Phone Number	LOE (# of days)
Central Coordinator				
Project Manager				
Insectary Manager				
Database Manager				

## **6. Communication and Collaboration**

To ensure effective communication, discuss progress of the scope of work and to enable sound oversight and management, Abt Associates request regularly scheduled meetings between Abt Associates and the offeror throughout the period of performance.

At a minimum, Abt Associates expects the following from the offeror:

- **Bi-Monthly Meetings**
  - The contractor will be expected to hold bi-monthly meetings, following the awarding of the contract, with the project technical team, on an ongoing basis.
- **Bi-Monthly Status Report**
  - The contractor will be expected to submit a progress report every two weeks, following the awarding of the contract, documenting the status of all contract deliverables, to the project Chief of Party
- **Monthly Progress Report**
  - The contractor will be expected to submit a monthly progress report documenting the status of all deliverables, following the award of the contract to the project Chief of Party.
- **Project Management Team (PMT) Meetings**
  - The project management team shall review the status of the contract deliverables monthly after the award of the contract. The PMT may come up with recommendations on the implementation of the contract.
- **Program Reviews**
  - The project's technical team will review the status of the contract deliverables on a bi-weekly basis. The team shall review the Gant chart and the contractor bi-monthly progress reports' outcome. Furthermore, the technical team shall also review the outcome of bi-monthly meetings with the contractor and the project management team.
- **Report preparation meetings / Project Lead & Database Manager with Abt**
  - The project's technical team shall meet with the portfolio lead from the contractor organization with the goal of discussing and agreeing on the content and format of the report, before the first version of each deliverable report is submitted by the contractor to the project.

Each deliverable report shall be reviewed by the project's technical team, and this may be followed by a meeting between the contractor and the project's technical team, to discuss the report and any subsequent update and/or amendment. The project's technical team shall include the Chief of Party, Ento MEL Manager and Ento Manager.



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## 7. Material, Equipment and Laboratory Procurement

The offeror will be responsible for providing any necessary supplies or materials to support the activities outlined in this scope of work. Should the offeror propose to conduct procurement of supplies for the SOW proposed, the offeror must conduct procurements and ensure that all reasonable efforts be made to adhere to the agreed upon delivery deadlines.

## 8. Assumptions (if needed)

- Cone bioassays will be done using a susceptible *An. gambiae* strain (preferably the Kisumu strain).
- Adequate numbers of female mosquito samples will be available to conduct the cone assays each month.

**Non-Disclosure / Data Use:** The data obtained during the implementation of this contract will not be shared, used for any purpose, or reproduced without the express permission of PMI Evolve Zambia Chief of Party.

## 9. Activity Schedule

	2025			2026		
<b>Activity or Deliverable</b>	O	N	D	J	F	M
October Cone Assays - Completed data entry (PMI Evolve DHIS2 database) and Report on experiences for the month						
November Cone Assays - Completed data entry (PMI Evolve DHIS2 database) and Report on experiences for the month						
Mid-term Report writing - Mid-term report on experiences, challenges and lessons learnt only						
December Cone Assays - Completed data entry (PMI Evolve DHIS2 database) and Report on experiences for the month						
January Cone Assays - Completed data entry (PMI Evolve DHIS2 database) and Report on experiences for the month						
February Cone Assays - Completed data entry (PMI Evolve DHIS2 database) and Report on experiences for the month						
March Cone Assays - Completed data entry (PMI Evolve DHIS2 database) and Report on experiences for the month						
Final Report writing - Final report on experiences, challenges and lessons learnt only						



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## 10. Deliverable Timeline Summary

No	Deliverable	Due date
1	October Assays - Completed data entry (PMI Evolve DHIS2 database)	31 <sup>st</sup> October, 2025
2	October Assays - Report on experiences for the month	31 <sup>st</sup> October, 2025
3	November Assays - Completed data entry (PMI Evolve DHIS2 database)	30 <sup>th</sup> November, 2025
4	November Assays -Report on experiences for the month	30 <sup>th</sup> November, 2025
5	Mid-Term report on experiences, challenges and lessons learnt only	30 <sup>th</sup> November, 2025
6	December Assays - Completed data entry (PMI Evolve DHIS2 database)	31 <sup>st</sup> December, 2025
7	December Assays - Report on experiences for the month	31 <sup>st</sup> December, 2025
8	January Assays - Completed data entry (PMI Evolve DHIS2 database)	31 <sup>st</sup> January, 2026
9	January Assays - Report on experiences for the month	31 <sup>st</sup> January, 2026
10	February Assays - Completed data entry (PMI Evolve DHIS2 database)	26 <sup>th</sup> February, 2026
11	February Assays - Report on experiences for the month	26 <sup>th</sup> February, 2026
12	March Assays - Completed data entry (PMI Evolve DHIS2 database)	31 <sup>st</sup> March, 2026
13	March Assays -Report on experiences for the month	31 <sup>st</sup> March, 2026
14	Final report on experiences, challenges and lessons learnt only	31 <sup>st</sup> March, 2026

## 11. Payment Schedule

Includes a table of the deliverables as listed in the section above, plus deliverable due date as included in section on schedule above. Offeror to add in the fixed price payment per deliverable based on budget presented. **Please note that the final subcontract agreement will include a 10% forfeiture of the disbursement amount per deliverable for failure to deliver on or before the submission date.**

#	Deliverable	Submission Date*	Percent of Total Budget	Value in USD
1	October Assays - Completed data entry (PMI Evolve DHIS2 database) and Report on experiences for the month	31 <sup>st</sup> October	20%	
2	November Assays - Completed data entry (PMI Evolve DHIS2 database), Report on experiences for the month, and Mid-term report on experiences, challenges and lessons learnt only	30 <sup>th</sup> November	10%	
3	December Assays - Completed data entry (PMI Evolve DHIS2 database)	31 <sup>st</sup> December	20%	



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	Final report on experiences, challenges and lessons learnt only			
4	January Assays - Completed data entry (PMI Evolve DHIS2 database) Final report on experiences, challenges and lessons learnt only	31 <sup>st</sup> January	10%	
5	February Assays - Completed data entry (PMI Evolve DHIS2 database) and Report on experiences for the month	28 <sup>th</sup> February	10%	
6	March Assays - Report on experiences for the month, and Report on experiences for the month and Final report on experiences, challenges and lessons learnt only	31 <sup>st</sup> March	30%	
	<b>TOTAL</b>			

## **ATTACHMENT B**

### **PART 1: BUDGET TEMPLATE**

Instructions: Offerors can arrange budget categories as needed to fulfill the scope of work requested. Project activities in the template below are illustrative only and can be added or deleted as needed. Unit costs should be in local currency, totals should be in both local currency and USD. Salaries and wages should list positions, names, local currency daily rates and number of days budgeted for each person.

<b>Expense Type</b>	<b>Description</b>	<b>Unit Cost (local currency)</b>	<b>Quantity</b>	<b>Total Cost (Local Currency)</b>	<b>Total Cost (USD)</b>
<b>I. Salaries and Wages</b>					
Position Title	Name	Daily rate	Days		
<b>Total salaries and meetings</b>					
<b>II. Project Activities</b>					
1. Field activities					



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2. Professional and Consultant Services					
3. Travel					
4. Materials/Supplies/Equipment					
5. Other					
<b>Total Project Activities</b>					
<b>I + II. Total Personnel + Project Activities</b>					
Fixed Fee					
<b>Grand Total</b>					

## **PART 2: BUDGET NOTES**

The offeror should include budget notes explaining the basis of calculation for each main budget category, including but not limited to Salaries and Wages; Project Activities; Professional and Consultant services, Travel, Materials/Supplies/Equipment; Fixed fee.

Budget notes should describe how unit costs and daily rates were determined; and the offeror must have supporting documentation for unit costs readily available upon request.

All submitted budgets will be reviewed for accuracy in the formulas, consistency with local/historical prices, comparability with offerors of similar services, cost reasonableness, and compliance with project requirements.



**Mandatory Federal Acquisition Regulation (FAR)  
Flow-down Clauses for Commercial Items under  
United States Government Prime Contracts**



This procurement, including Purchase Orders, Consulting Agreements, Subcontracts, Professional Services Agreements (hereinafter “Agreement” or “Award”) is issued to Vendor, Supplier, Consultant, or Subcontractor (hereinafter “Subcontractor”) in support of the performance of a federally funded Prime Contract, or Subcontract issued thereunder. This Agreement incorporates one or more clauses by reference, below, with the same force and effect as if they were given in full text. Upon request, the Abt Associates Subcontracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at <http://www.acquisition.gov>.

In addition to terms, conditions, and clauses incorporated by reference elsewhere in the Agreement, mandatory FAR clauses are hereby made a part of this Agreement by reference and are applicable to it with the following modifications:

Where necessary to make the language of the FAR clause applicable to the Agreement, the term “Contractor” shall mean “Supplier”, “Vendor”, “Consultant”, or “Subcontractor” as appropriate; the term “Contract” shall mean the “Purchase Order” “Consulting Agreement” or “Subcontract” as appropriate; the terms “Government,” “Covered Entity,” “Contracting Officer,” and equivalent terms and phrases shall mean “Abt Associates”.

The following instances are exceptions to the general rules as provided above:

1. Where it is clear, by the context of the provision itself or the conditions under which it is being applied, that the reference is intended to refer to the Government, its officers or agents, or the prime contractor specifically;
2. Where an explicit provision of the Agreement states a contrary intent;
3. Where access to proprietary financial information or other proprietary data is required; or
4. Where interpretation in accordance with the rules stated above would place the prime contractor in a position of violating the equivalent or related provisions of the Prime Contract whereas construction of the terms without modification would not.

Subcontractor shall incorporate these requirements into all lower-tier procurements to the extent required by the terms of the clauses.

No provision contained in a FAR clause shall be taken to imply any direct access on the part of the Subcontractor to the Disputes process as defined in the terms of Abt’s Prime Contract, but rather shall be governed by the “Disputes” provision included in this Agreement.

Clause	Title	Year	Applicability
52.203-13	Contractor Code of Business Ethics and Conduct	Nov 2021	Awards > \$6,000,000 with performance period > 120 days
52.203-16	Preventing Personal Conflicts of Interest	Jun 2020	Service Subcontracts (other than Construction) that exceed \$250,000 and require performance of acquisition functions closely associated with inherently government functions
52.203-19	Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements	Jan 2017	All Awards
52.204-2	Security Requirements	Mar 2021	All Awards involving access to classified information
52.204-9	Personal Identity Verification of Contractor Personnel	Jan 2011	All Awards where it is required to have routine physical access to a Federally-controlled facility and/or routine access to a Federally-controlled information system
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards.	Jun 2020	Awards > \$30,000
52.204-21	Basic Safeguarding of Covered Contractor Information Systems	Nov 2021	All awards in which Subcontractor may have Federal contract information residing in or transition through its information systems

Clause	Title	Year	Applicability
52.204-23	Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities	Nov 2021	All Awards
52.204-25	Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment	Nov 2021	All Awards
52.219-8	Utilization of Small Business Concerns	Oct 2018	Awards > \$750,000
52.222-21	Prohibition of Segregated Facilities	Apr 2015	Awards > \$10,000
52.222-26	Equal Opportunity	Sep 2016	Awards > \$10,000
52.222-35	Equal Opportunity for Veterans	Jun 2020	Awards > \$150,000
52.222-36	Equal Employment for Workers with Disabilities	Jun 2020	Awards > \$15,000
52.222-37	Employment Reports on Veterans	Jun 2020	Awards > \$150,000
52.222-40	Notification of Employee Rights Under the National Labor Relations Act	Dec 2010	Awards > \$10,000 performed in whole or in part in the United States
52.222-41	Service Contract Labor Standards	Aug 2018	All Awards subject to the Service Contract Labor Standards statute
52.222-50	Combating Trafficking in Persons	Nov 2021	Awards > \$550,000 for supplies, other than commercially available off-the-shelf items, acquired outside the United States, or services to be performed outside the United States.
52.222-54	Employment Eligibility Verification	Nov 2021	All Awards > \$3,500
52.222-55	Minimum Wages Under Executive Order 13658	Nov 2020	All Awards subject to the Service Contract Labor Standards statute, or the Wage Rate requirements (Construction) statute, and are to be performed in whole or in part in the United States
52.222-62	Paid Sick Leave Under Executive Order 13706	Jan 2017	All Awards subject to the Service Contract Labor Standards statute, or the Wage Rate requirements (Construction) statute, and are to be performed in whole or in part in the United States
52.223-99	Ensuring Adequate COVID-19 Safety Protocols for Federal Contractors	Oct 2021	Awards >\$250k for services, including construction, performed in whole or in part within the United States or its outlying areas.
52.224-3	Privacy Training	Jan 2017	Review paragraph (f) of clause for applicability
52.225-13	Restrictions on Certain Foreign Purchases	Feb 2021	All Awards
52.225-26	Contractors Performing Private Security Functions Outside the U.S.	Oct 2016	Review paragraph (f) of clause for applicability
52.226-6	Promoting Excess Food Donation to Nonprofit Organizations	Jun 2020	>\$30,000 involving the provision, service, or sale of food
52.227-14	Rights in Data—General.	May 2014	All Awards
52.232-40	Providing Accelerated Payments to Small Business Subcontractors	Nov 2021	Awards to small business concerns
52.233-3	Protest After Award	Aug 1996	All Awards
52.236-13	Accident Prevention	Nov 1991	All Awards for construction, dismantling, demolition, or removal if improvements
52.242-15	Stop-Work Order	Aug 1989	All Awards
52.243-1	Changes Fixed-Price	Aug 1987	All Supplies

Clause	Title	Year	Applicability
52.243-1	Changes Fixed-Price, Alt I	Aug 1987	All Services
52.243-1	Changes Fixed-Price, Alt II	Aug 1987	All Supplies and Services
52.244-6	Subcontracts for Commercial Products and Commercial Services	Nov 2021	All Awards
52.245-1	Government Property	Sep 2021	All Awards when property is acquired, furnished, or provided
52.247-64	Preference for Privately Owned U.S. Flag Commercial Vessels	Nov 2021	All Awards
52.249-2	Termination for Convenience of the Government (Fixed Price)	Apr 2012	All Fixed Price Awards



## ATTACHMENT A:

### Abt Standard Purchase Order Terms and Conditions

1. defects in design, material, workmanship and shall operate in accordance **PRICES**. All prices are firm unless otherwise agreed in writing.
2. **EXTRA CHARGES**. No charges of any kind will be allowed unless specifically agreed to by Buyer in writing.
3. **CHANGES**. No modification of this order shall be binding on Buyer unless made by a formal purchase order document issued by Buyer.
4. **WARRANTIES**. Seller warrants that for a period of one-year goods shall be free from with the specifications. Buyer shall notify Seller of any failure to meet the foregoing warranties and Seller shall, at its sole expense, promptly repair or replace such defective goods.
5. **AGREEMENT AND MODIFICATION**. This order shall constitute the entire agreement between the parties, and no obligations not written in the agreement are binding upon them. No alteration of any of the provisions shall be binding, unless in writing and signed by the Buyer.
6. **SUB-CONTRACTING**. Seller shall not subcontract nor delegate performance called for under this Order without the prior written consent of Buyer.
7. **FORCE MAJEURE**. Any delay or failure of either party to perform its obligations hereunder shall be excused if caused by an event or occurrence beyond the reasonable control of the party and without its fault  
– provided that written notice of such delay shall be given by the affected party to the other party within thirty (30) days.  
During the period of such delay by Seller, the Buyer may purchase goods from other sources and reduce its schedule to Seller by quantities without liability to Buyer, or have Seller provide the goods from other sources in quantities requested by Buyer at the price set forth in this order.
8. **DELIVERY**. Except as hereinafter provided, delivery shall be made in accordance with the time stated on this Purchase Order and Buyer reserves the right to cancel the order if delivery is not made as specified.  
When the Seller has reason to believe that deliveries will not be made as requested in Buyer's Purchase Order, the Seller shall provide written notice setting forth the cause and period of the anticipated delay.
9. **TERMINATION FOR CONVENIENCE**. The Buyer may terminate this contract by written notice in whole or in part, when it is in the best interest of the Buyer to do so. If this contract is so terminated, the Seller and the Buyer may agree upon the amount to be paid to the seller by reason of such termination.
10. **DEFAULT**. The Buyer may by written notice terminate all or any part of this contract:
  - If the Seller fails to make delivery of goods or perform services within the time specified, or
  - If the Seller fails to perform any other requirement of this contract and does not cure such failure within thirty (30) days after receipt of notice from the Buyer specifying such



failure.

- 11. LIABILITY FOR INJURY.** Seller shall indemnify Buyer against any liability for all personal injury and property damage caused by the Goods or Services performed by Seller.
- 12. NON-WAIVER.** The failure of Buyer to enforce any of the provisions does not waive these provisions nor the right of Buyer to enforce every provision.
- 13. APPLICABLE LAW AND FORUM.** This order shall be interpreted in accordance with, and shall be governed by the Laws of Malawi.
- 14. COMPLIANCE WITH LAWS.** Seller agrees to comply with the provisions of all present and future federal and local law or ordinance and all other rules, and regulations applicable to this order and its performance.
- 15. INVOICING.** After each shipment or service provided under this order, the Seller shall send a separate invoice. Payment of invoice shall not constitute acceptance of the Goods or Services and shall be subject to appropriate adjustment for failure of Seller to meet the requirements of this order. All invoices must reference an Abt Global Purchase Order number(s) to prevent delay in payment.
- 16. PAYMENT.** Abt Associates Inc. shall make payment to the vendor within 30 days of receiving, in good condition, all goods and services specified in the Purchase Order and a full and complete vendor invoice.
- 17. REMEDIES.** If any of the goods are found within a reasonable time after delivery to Buyer to be defective Buyer shall have the right to reject and return such goods at Seller's expense and deduct the cost from the Seller's invoice.

*Title: Wall Cone Bioassay of Sprayed Surfaces for Quality Assurance and Residual Efficacy Monitoring of IRS*

## TITLE: WALL CONE BIOASSAY OF SPRAYED SURFACES FOR QUALITY ASSURANCE AND RESIDUAL EFFICACY MONITORING OF IRS

	Full name	Signature	Date (dd/mm/yyyy)
Authors	PMI VectorLink		
Approval Authority	PMI Washington		

### Document history:

Supersede version / issue date	Revisions & reason for change	Current version & version date	Reviewer's name

## 1. DEFINITIONS

- **Bioassay:** In applied entomology, experimental testing of the biological effectiveness of a treatment (e.g. infection, insecticide, pathogen, predator, repellent) by deliberately exposing insects to the treatment.
- **Residual bio-efficacy of insecticides:** The length of time that an insecticide remains effective in killing targeted insect where they are applied.
- **Insecticide:** Chemical product (natural or synthetic) that kills insects.

## 2. PURPOSE

This SOP outlines the procedures for conducting cone bioassays to determine the quality of indoor residual spraying (IRS) and the residual efficacy of the insecticide sprayed. This SOP describes the procedures for cone bioassay of both fast acting (e.g. Actellic CS) and slow acting (e.g. Sumishield) insecticides. PMI-VectorLink routinely conducts quality assurance cone bioassay shortly after spraying and subsequent monthly cone bioassays.

## 3. EQUIPMENT AND MATERIALS

- Standard World Health Organization (WHO) plastic cones
- 2-5-day old non-blood fed female mosquitoes (confirmed susceptible colony strain)
- Paper cups
- Mosquito aspirators (with HEPA filter) bent and straight



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- Bottled water
- 10% glucose
- Cooler boxes
- Cotton wool
- Untreated netting pieces
- Rubber bands
- Masking tape
- Stop watch
- Towels
- Mosquito cage
- Thermo-hygrometer (temperature & humidity reader)
- Untreated portable wall material (mud, concrete, bricks) for control tests
- Hand soap
- Nitrile gloves
- Adhesive plastic sponge
- Small needles/nails
- Data collection form and pen
- Paper cups
- Untreated netting to cover the cups

#### **4. SAFETY**

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##### **HAZARDS**

List items that are risks, e.g. manual handling, sharps, chemical, biological, radiation

1. *Hazard* – Insecticide sprayed walls.

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##### **RISK CONTROL**

List what controls are put in place to minimise or lower the risk level, personal protective equipment (PPE), restrict use of item/chemical to trained persons, specific training and induction processes, designated waste disposal guidelines etc.

1. *Risk control* – A HEPA filter should be used on the aspirator to prevent ingestion of insecticide dust.
-

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## 5. PROCEDURES

### 5.1. PLANNING

- Cone bioassays for IRS quality assurance must be conducted within 1 week (between 24 hrs and 7 days) of the start of the IRS campaign and monthly thereafter until mortality falls below 80% for two consecutive months.
- Cone bioassays for quality assurance should ideally be conducted in every IRS district (or a subsample of districts for large IRS programs). The PMI-VectorLink in-country entomologist must coordinate with the project Operations Manager and Chief of Party to determine the spray schedule and select villages in different districts that are scheduled for IRS in the 1<sup>st</sup> week of the campaign.
- Ideally the same villages used for monthly entomological monitoring should be used for quality check and monthly cone bioassay.
- At least ten houses should be chosen for cone bioassays in each district (unless a large number (>5) of districts are sprayed).
- In each district cone bioassays should be conducted in a minimum of two villages (5 houses per village) which should be at least 20km apart.
- A representative number of houses for cone bioassays should be chosen according to the most common wall types found across the district. Ideally, this decision should be made using data such as a previous DHS (Demographic and Health) survey, or previous entomology survey that collected housing data.
- For example, DHS data might show that 55% of walls in the district were mud, 20% concrete, 5% wood, 10% painted, 7% whitewash, 3% bamboo. In this example cone bioassays should be done in 5 mud houses, 2 concrete, 1 painted, 1 whitewash and 1 wood in that district.
- If there is no data available, the most common housing types across the district should be estimated from closest available sources.
- A draft cone bioassay schedule should be prepared by the in-country entomologist and shared with the home office Entomologist, Chief of Party and Technical Program Manager (see example

**Table 1. Example of schedule for quality control cone bioassay.**

District	Villages	Spray date	Cone Bioassay Date	Mud	Concrete	Burnt Brick	Painted	Whitewash	Wood
Kigamboni	Mjorohoroni & Maja	2-May-18	5-May-18	4	2	2	0	2	0
Nsekele	Tongo & Lawi	4-May-18	6-May-18	2	2	5	1	0	0
Zwani	Mtibwa 1 & Chekereni	1-May-18	4-May-18	0	4	1	2	2	1
Mtingwa	Kakakuona & Ndiwaville	3-May-18	7-May-18	7	2	1	0	0	0

below).

- Every sampled house should be sprayed by a different spray operator (if possible also by a different team) so that variation in spray quality is captured.

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- The same houses and walls should be used every month for cone bioassay to determine residual efficacy of IRS. It is important to mark the spots and conduct the assays on the same spots.
- Cone bioassays should be conducted using a confirmed susceptible insectary strain of *An. gambiae* or *An. arabiensis*.
- Wild *Anopheles* may also be used for cone bioassays in addition to insectary-reared mosquitoes, particularly in areas where there are signs of resistance to insecticide used for IRS. Wild *Anopheles* should be collected as larvae and tested as female adults age 2-5 days. The same houses should be used for insectary reared susceptible strain and wild *Anopheles* so that comparison of results can be made.
- Ensure that plastic cones and aspirators are thoroughly cleaned before travelling to the test site. Soak bioassay materials overnight in 10% bleach solution before rinsing twice with cold water.

## 5.2. PROCEDURES

- Female *An. gambiae* or *An. arabiensis* (where appropriate) mosquitoes must be transported from the insectary to the field site using cooler boxes. Mosquitoes must be provided with 10% glucose solution and covered with a damp towel in the cooler box during transportation.
- Upon arrival at the field site, mosquitoes should be left to recover for several hours before putting 10 female mosquitoes per cup (age 2-5 days at the time of testing) and providing with 10% glucose solution pad. Where feasible mosquitoes can also be transported from the insectary to the field in paper cups (in batches of 10). Paper cups are kept in cool and damp boxes.
- Mosquitoes should be kept overnight in a climate controlled hotel room or field insectary at conditions close to 27°C temperature and greater than 75% relative humidity.
- The following morning mosquitoes should be transported to the test sites in a cooler box as described earlier. Mosquitoes should be kept in the car away from sprayed houses due to risk of insecticide fumigant mortality.
- Tests should be conducted early in the morning when conditions are favourable for mosquitoes.
- In every house, 3 cones should be attached to the wall at 0.5, 1 and 1.5 m above the floor. Cones should be positioned on 3 different walls in a bedroom.
- Cones should be attached using masking tape or needles/nails, with care taken to make sure mosquitoes won't escape or stick to the tape if knocked-down.
- Label paper cups with all identifying information: Date, time of exposure, district, village name, household number and place/height in the wall (0.5, 1.0, 1.5 meter) type of wall etc.
- Once the cones have been attached, gently aspirate 10 mosquitoes with a straight aspirator into the first cone and plug the cone with cotton wool. Check that no mosquitoes are damaged during transfer. If mosquito damage occurs due to aspiration remove mosquitoes and repeat the test.

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- Start the stop-watch and expose mosquitoes for 30 minutes.
- Record room temperature and relative humidity (RH) at the beginning and end of each day's testing.
- Control bioassays should be conducted in parallel by the same person. A different clean aspirator from those used in sprayed houses should be used for the control bioassays and the technician should wash hands before bioassay.
- One negative control test should be conducted per house using a portable unsprayed wall substrate (same type as the wall material in the house when possible, see Fig 1). The negative control should be conducted in an unsprayed house or under a shady tree to avoid fumigant effects from sprayed houses.
- Score mosquitoes for knock down immediately at the end of the 30 minute exposure period while mosquitoes are still in the cone (KD 30 mins). A mosquito is classified as knocked down if it is immobile or unable to stand or take off.
- After scoring, gently aspirate the mosquitoes using a bent aspirator from the first cone into a labelled paper cup.
- Move on to the next successive cone and aspirate out the next batch of mosquitoes until all cones have had the mosquitoes removed.
- Put on a new pair of gloves before handling sugar solution (to avoid insecticide contamination) and place a 10% glucose-soaked cotton wool on top of the cups and place in the racks.
- Score mosquitoes for knock down again 30 mins after the end of the exposure period (KD 60 mins). A mosquito is classified as knocked down if it is immobile or unable to stand or take off.
- Once all bioassays have been completed, ensure that all bioassay cones and aspirator tubes (including those used for the controls) are removed from the huts and put into a plastic bin with a sealed lid for transport back to the laboratory for cleaning. Use a 10% bleach solution to soak the cones and rinse twice with tap water.
- Carefully transport mosquitoes in cool boxes to the field station or insectary and mortality is subsequently recorded at 24h after exposure for all insecticide types.
- Results must be recorded on the "WHO Cone Bioassay Test Record Form".
- For the neonicotinoid insecticide Sumishield, mortality should be recorded every 24h for 5 days after exposure until 100% mortality is achieved. If mortality is <100% after 5 days, mortality may be recorded up to 7 days after exposure.
- Repeat tests in sites where control mortality is more than 20% (if possible).

**Figure 1. Example of a portable concrete block used as a negative control.**



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- For houses sprayed with organophosphate or carbamate insecticides test mortality after 24 hours holding period is expected to be 100% during the quality check tests. If test mortality is less than 100% in any of the houses tested during quality check, report this immediately to the COP and operations manager (OM). Work with the COP and OM to investigate for any possible causes and further actions. Include findings in your report.

### **5.3. REPORTING**

- A report of cone bioassay for quality assurance must be submitted by the in-country entomologist to the home office entomologist, TPM and COP within 1 week of the start of IRS.
- The quality assurance report will be edited and subsequently submitted to PMI and NMCP no later than 2 weeks after the start of IRS.
- Data on residual efficacy will be reported in semi-annual and annual reports.

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## 6. QUALITY CONTROL

A parallel negative control test should be conducted using 1 cone outside every sprayed house tested.

## 7. SOP COPY CONTROL LOG

**Purpose:** The log records the number of certified copies of this SOP printed and where they were distributed.

**When:** Whenever the SOP is reviewed: annually or more often when necessary.

**By whom:** By QA staff / designee

Distribution Date: 10/08/2017		Total number of certified copies (including Master Copy): NA	
SOP Distribution (location and number of certified copies)			

## APPENDICES

### APPENDIX I: SOP TRAINING LOG FOR PERSONNEL TRAINING FILES

Date:	SOP Number and Title	Employee Signature	Supervisor Initials



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