



**US Environmental Protection Agency
Office of Pesticide Programs**

**Office of Pesticide Programs
Microbiology Laboratory
Environmental Science Center, Ft. Meade, MD**

**Standard Operating Procedure for
Calibration and Maintenance of Timers**

SOP Number: EQ-05-08

Date Revised: 08-07-19

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Title	Calibration and Maintenance of Timers
Revisions Made	<ul style="list-style-type: none">• Added the option of replacing timers when their ISO accreditation expires with newly purchased and accredited timers.• Minor editorial changes.

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Title	Calibration and Maintenance of Timers
Scope	Describes the process for calibration and maintenance of timers, certified instruments that can display time in seconds.
Application	Timers are used for managing timed activities in test methods.

	Approval	Date
SOP Developer:	_____	_____
	Print Name: _____	
SOP Reviewer	_____	_____
	Print Name: _____	
Quality Assurance Unit	_____	_____
	Print Name: _____	
Branch Chief	_____	_____
	Print Name: _____	

Date SOP issued:	
Controlled copy number:	
Date SOP withdrawn:	

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1. Definitions	<ol style="list-style-type: none"> 1. A2LA = American Association for Laboratory Accreditation 2. ISO = International Organization for Standardization 3. NVLAP = National Voluntary Laboratory Accreditation Program
2. Health and Safety	None
3. Personnel Qualifications and Training	Refer to SOP ADM-04, OPP Microbiology Laboratory Training.
4. Instrument Calibration	Not applicable
5. Sample Handling and Storage	Not applicable
6. Quality Control	For quality control purposes, the required information is documented on the appropriate form(s) (see section 14).
7. Interferences	None
8. Non-conforming Data	<ol style="list-style-type: none"> 1. Procedures to handle non-conformances are consistent with SOP ADM-07, Non-Conformance Reports.
9. Data Management	<ol style="list-style-type: none"> 1. Data will be archived consistent with SOP ADM-03, Records and Archives.
10. Cautions	Not applicable
11. Special Apparatus and Materials	<p>Timer Specifications:</p> <ul style="list-style-type: none"> • Battery operated bench top timers • Reads in hours, minutes, and seconds • Individual serial numbers • Calibrated per ISO 17025
12. Procedure and Analysis	Calibration certificates must contain the stamp of the accrediting body (e.g., A2LA, NVLAP) and the calibration vendor certificate number.
12.1 Use Period of Timers	<ol style="list-style-type: none"> a. Purchase new timers with accredited calibration certificates. b. Maintain an electronic inventory of timers with their calibration certification (Timer Certification Record; see section 14). Enter the timer serial number and calibration expiration date into the electronic inventory. After each addition, file a hard copy of the inventory and calibration certificate in the Timer Calibration Record notebook.

	c. When the calibration expires, remove the timer from service and the inventory.
12.2 Operation	Follow the instructions, provided by the manufacturer, for the operation of each timer. See section 15.
13. Data Analysis/ Calculations	None
14. Forms and Data Sheets	Form is stored separately from the SOP under the following file name: Timer Certification Record EQ-05-08_F1.docx
15. References	Operation manuals for timers located in file cabinet in D-wing.