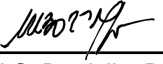
	STANDARD OPERATING PROCEDURE		No.	SOP-1300-LAB-002
	Laboratory Emergency Response	Effective Date	7/8/2025	
		Final Approver	 Miguel C. Bordallo, P.E. General Manager	
		Revision Letter	A	

1.0 Purpose

The purpose of this Standard Operating Procedure (SOP) is to provide direction to Guam Waterworks Authority (GWA or Authority) Certified Utility Compliance Monitoring Laboratory (Laboratory/GWA Lab/Lab) personnel on the course of action and response during emergencies in support of GWA's emergency response.

2.0 Scope

This SOP applies to Compliance Laboratory personnel in events involving both natural (e.g., typhoon or earthquake) and man-made (terrorist activity) threats.

3.0 Policy

Laboratory management plans for microbial and chemical analyses in compliance with the required Safe Drinking Water Act (SDWA), Guam Primary Drinking Water Regulations (GPDWR), and Clean Water Act (CWA) regulatory monitoring purposes and in support of GWA Operations.

4.0 Definitions

- 4.1. **All Clear:** Typhoon Condition of Readiness IV (COR-4) – normal non-hazardous/no-risk conditions.
- 4.2. **Potable Water Analyses:** The testing of water for bacteria, specifically for total coliforms and *E. coli*, to ensure it is safe to be used as drinking water.
- 4.3. **Typhoon Condition of Readiness I (COR-1):** Winds of 75 miles per hour (mph) and above are possible within 12 hours.
- 4.4. **Typhoon Condition of Readiness II (COR-2):** Winds of 75 mph and above are possible within 24 hours.
- 4.5. **Typhoon Condition of Readiness III (COR-3):** Winds of 75 mph and above are possible within 48 hours.
- 4.6. **Typhoon Condition of Readiness IV (COR-4):** Normal non-hazardous/no-risk conditions.

5.0 Roles and Responsibilities

5.1.	General Manager	Provides general supervision of the implementation of this SOP in the entire Authority. Approves this SOP and all its subsequent changes.
------	-----------------	--

Laboratory Emergency Response

5.2.	Assistant General Manager for Compliance and Safety (AGM-C&S)	Oversees the development, revision, and implementation of this SOP as the Policy Owner. Provides direct supervision of the Laboratory Section.
5.3.	Laboratory Administrator	Monitors and supervises the operation of Laboratory Section. Ensures that Laboratory staff follow the communication flow set in this SOP. Reviews this SOP annually and makes necessary changes to be presented to the AGM-C&S for consideration. Ensures that proper training and/or training guidelines are provided to the affected employees to ensure proper compliance with this SOP.
5.4.	Administrative Assistant Biologist Chemist Lab Tech Supervisor Lab Tech Leader Lab Techs Other Lab Personnel	Read and acknowledge receipt of this SOP (Attachment 1), follow procedures as described in Section 6 of this document, and adhere to the sampling procedures as outlined in SOP-1300-LAB-001 <i>Sample Collection, Preservation and Storage</i> when collecting samples.
5.5.	Water Operations and Maintenance Division	Coordinates with the Compliance and Safety Division for water collection and sampling of all potable water tankers utilized by the Water Distribution.

6.0 Procedure Description

6.1. Typhoon:

- 6.1.1. The sub-command headquarters for GWA Laboratory shall be the Compliance Laboratory Building, with the Compliance Lab Administrator as the primary coordinator for potable water analyses and wastewater effluent sampling during the period after ALL CLEAR condition is declared. Further, the Lab Tech Supervisor shall coordinate bacteriological sampling and analyses of Potable Water Tankers to be utilized at Guam Memorial Hospital during the emergency period and at locations without water after the emergency. The Water Operations and Maintenance Division is responsible for the Dispatch Operation of all Potable Water Tankers.
- 6.1.2. **Pre-storm Preparations:** Shall commence immediately before or upon declaration of Typhoon Condition of Readiness II:

Laboratory Emergency Response

- 6.1.2.1. Dismiss all employees with sufficient time to permit them to reach their homes safely. Dismissal must occur **only after precautionary measures are taken to secure work areas.**
- 6.1.2.2. Typhoon preparation shall consist of, but not be limited to:
 - a. In coordination with the Water Operations and Maintenance Division, collect and analyze samples for bacteriological analyses for all potable water tankers to be utilized by Water Distribution.
 - b. Prepare chemical reagents used for chemical and bacteriological analyses.
 - c. Anchor down all loose items around the Laboratory building.
 - d. Secure the Laboratory, including equipment, instruments, and computers with appropriate covering to prevent damage and assure all computer towers and UPS devices are off the floor.
 - e. Take photographs of the interior and exterior of the Lab building and vehicles in the event of damage caused by the natural disaster for claims purposes.
 - f. Fuel all official vehicles to capacity before COR-2 declaration.
 - g. Procure all necessary supplies and materials.
- 6.1.3. Once **ALL CLEAR** conditions are declared, all Lab personnel shall report to duty and await instructions from management.
- 6.1.4. Lab personnel shall prepare for bacteriological sampling of areas where water outage occurred and follow procedures described in the *Issuance of Boil Water Advisory/Precautionary Notice* SOP.
- 6.1.5. Wastewater sampling and analyses shall resume as soon as circumstances permit¹.
- 6.1.6. Wells within 1,000 feet of a sewer overflow shall be sampled for bacteriological testing upon receipt of Sanitary Sewer Overflow (SSO) report/notification.

6.2. Earthquake:

- 6.2.1. The Lab Administrator shall mobilize the Lab staff for possible bacteriological sampling and analysis should an earthquake result in a water main break or water outage of more than eight (8) hours.
- 6.2.2. Lab personnel shall follow procedures described in the *Issuance of Boil Water Advisory/Precautionary Notice* SOP.
- 6.2.3. Wastewater sampling and analyses shall resume as soon as circumstances permit¹.

¹ Refer to SOP-1300-LAB-001, *Sample Collection, Preservation and Storage*.

Laboratory Emergency Response

6.3. Man-Made Threats:

- 6.3.1. The AGM-C&S shall provide directives to the Lab Administrator for the necessary response to the threats.
- 6.3.2. The Lab Administrator shall mobilize the Lab staff in accordance with the directives received from the AGM-C&S.
- 6.3.3. The Lab staff shall maintain communications with their respective supervisor for instructions in response to the threats.
- 6.3.4. Wastewater sampling and analyses shall resume as soon as circumstances permit¹.

6.4. Non-Compliance to this SOP:

- 6.4.1. **Employee:** Failure of the employee to adhere and comply with any of the guidelines, policies, and procedures stated herein may result in progressive or adverse disciplinary action, including but not limited to suspension, demotion or termination of employment as provided by GWA Personnel Rules and Regulations (PR&R).
- 6.4.2. **Supervisors and Managers:** Failure of the manager or supervisor to report and enforce all the guidelines, policies, and procedures stated herein may result in progressive or adverse disciplinary action, including but not limited to suspension, demotion, or termination of employment as provided by GWA PR&R.

6.5. Training:

- 6.5.1. The Lab shall hold an annual training exercise. The *Training Checklist (Attachment 2)* shall be completed each training exercise.

7.0 Document Approvals

Role	Position	Name of Approver	Approval Signature	Date Approved
Author	Utility Compliance Lab Administrator	Jennifer O. Cruz, M.S.	Approval on File	On File
Policy Owner	Assistant General Manager for Compliance & Safety (AGM-C&S)	Paul J. Kemp, M.S.	Approval on File	On File
Final Approver	General Manager	Miguel C. Bordallo, P.E.	Page 1	Page 1

By existing Guam and Federal laws, the contents of this SOP were reviewed thoroughly by its Policy Owner and was found to be:

- ☒ appropriate for publication on the GWA website without compromising the security of GWA's system or the public's health and safety.
- ☐ not appropriate for publication on the GWA website because it might jeopardize the security of GWA's system or the public's health and safety.

8.0 Records of Revisions

All suggestions for improvement shall be directed to the Policy Owner indicated below. The Policy Owner will consider input received, develop recommendations on how to address the

Laboratory Emergency Response

suggestions and obtain authorization to make the recommended changes. Updates, revisions, corrections, and waivers to this SOP shall be made in writing and be approved by the GM.

8.1. Policy Owner: Assistant General Manager for Compliance and Safety

8.2. Authorization: General Manager

Effective Date	Revision Letter	Document Author	Description of Change
Page 1	A	Jennifer O. Cruz, M.S.	Initial Release of SOP

9.0 References

9.1. SOP-1300-LAB-001, *Sample Collection, Preservation and Storage*.

9.2. *Issuance of Boil Water Advisory/Precautionary Notice* SOP (draft).

Laboratory Emergency Response

Attachment 1: Employee's Acknowledgment Receipt



Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam 96913
jennifercruz@guamwaterworks.org

LABORATORY EMERGENCY RESPONSE EMPLOYEE'S ACKNOWLEDGMENT RECEIPT

I, the undersigned, an employee of the Guam Waterworks Authority, hereby acknowledge receipt of SOP-1300-LAB-002 entitled "*Laboratory Emergency Response*" at the noted date below.

Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:

Laboratory Emergency Response

Attachment 2: Training Checklist



Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam 96913
jennifercruz@guamwaterworks.org

LABORATORY EMERGENCY RESPONSE TRAINING CHECKLIST

I, the undersigned, an employee of the Guam Waterworks Authority, hereby acknowledge attendance of training exercise in relation to SOP-1300-LAB-002 entitled "*Laboratory Emergency Response*" at the noted date below.

Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:
Employee's Name/Badge No.:	Employee's Signature:	Date:

Laboratory Emergency Response

Attachment 2: Training Checklist (Cont.)**CHECKLIST**

Description	Completed	
	Yes	No
<i>Pre-Storm</i>		
Reagents and supplies – preparation		
Facility – secure and photograph		
Vehicles – fuel and photograph		
Water Tankers – sampling and testing		
<i>Post-Storm</i>		
Facility inspection (photograph damages)		
Vehicles inspection (photograph damages)		
Sampling and testing		
- water distribution		
- wells within 1,000 ft of sewer overflow		
- wastewater (if applicable)		
<i>Earthquake</i>		
Sampling and testing		
- water distribution		
- wells within 1,000 ft of sewer overflow		
- wastewater (if applicable)		
<i>Man-Made Threats</i>		
Information dissemination		

Trainer: _____

Title: _____

Signature: _____

Date: _____

This form should be reviewed and updated periodically to ensure compliance with any changes in company policies or legal requirements.