ENVIRONMENTAL
PROTECTION
AGENCY - GHANA

INSPECTION
AND AUDIT MANUAL

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QUALITY MANAGEMENT SYSTEM

Quality Management System in the Environment Protection Agency			
Main Process:	Inspection and Audit	**Process Owner:**	Deputy Executive Director/Technical Services
Document Title:	Inspections and Audit Manual	**Prepared by:**	EPA
Document No.:		**Approved by:**	Executive Director
Last Revised:		**Next Revision:**	

1.0 INTRODUCTION

The Environmental Protection Agency is mandated by the Environmental Protection Agency Act, 1994, (Act 490) to ensure compliance with laid down environmental assessment procedures in the planning and execution of development projects, including compliance in respect of existing projects. The Agency is also to conduct investigations into environmental issues and advise the Minister thereof. Environmental Inspectors/Auditors of the Agency may at any reasonable time enter any premises for the purpose of ensuring compliance pertaining to the protection of the environment.

1.1 Purpose and Scope of the Manual

This manual discusses how inspections and audits are planned, implemented, reported on and followed up by the Environmental Protection Agency. This is to ensure that inspections and audits are implemented in the most systematic and uniform manner as possible.

1.2 Frequency of Review of the Manual

To be updated as needed.

1.3 References

Reference documents for an inspection, prepared by the Inspection Team is approved by the Technical Heads (Deputy Executive Director/Technical Services and Head of Department).

a. Legislations relating to pollution control, collection of fees for the Environmental Protection Agency in connection with the issuance of permits/licenses and monitoring under Environmental Protection Agency Act, 1994 (Act 490).
b. Regulations relating to environmental assessment, environmental management and duty to provide information (Environmental Assessment Regulations 1999 (LI 1652).
c. Hazardous and Electronic Waste Control and Management Acts, 2016 (Act 917).
d. Hazardous, Electronic and Other Wastes (Classification), Control and Management Regulations, 2016 (LI 2250).
e. Ghana Standards: 1236:2019, Environment and Health – Requirements for Ambient Air Quality and Point Source/Stack Emissions:
f. Ghana Standard: 1222:2018, Environment and Health – Requirements for Ambient Noise Control
g. Ghana Standard: 1212:2019, Environment and Health – Requirements for Effluent discharge
h. Ghana Standard: 1219:2018, Environment and Health – Requirements for Motor Vehicle Emissions.
i. ISO 19011:2011 Guidelines for Auditing Management Systems.

1.4 Revision Log

Qualitative assessments of weaknesses in the procedure and potential areas of improvement that came to light during the last review. There are to be no deviations from this document.

Version	Date	Revised by	Description of amendment

2.0 LEGAL BASIS FOR INSPECTIONS AND AUDITS

The Environmental Protection Agency Act, 1994 (Act 490) extends the rights to the Agency among others to:

a. to ensure pollution control, waste management and any other functions under Section 2 of Act 490 and must be given access to all physical areas of the permitted facility where pollution may occur and where chemicals that may harm people's health and the environment are located.
b. enter and search any premises without a warrant on reasonable grounds that an offence has been committed.
c. Stop the operations and seize equipment, vehicle or appliance which is being used in the commission of an offence.
d. demand access to all relevant information, e.g. be shown and to examine documents such as measurement results, chemical documentation and contracts, notwithstanding any duty of confidentiality.

2.1 Special Provisions for Facility Inspections/Audits

Separate guidelines and regulations have been drawn up for the various sectors and for specific facilities. Schedules 1 & 2 of the Environmental Assessment Regulations 1999, LI 1652 and the provisions of the Hazardous, Electronic and Other Wastes (Classification), Control and Management Regulations, 2016 (LI 2250), specify which undertakings shall be covered by this document.

The EPA Act 1994, Act 490 gives the Agency the authority to issue permits and set requirements to reduce the release of emissions that occur regularly, i.e. emissions to the atmosphere and discharges to water, management of waste, and for related monitoring activities. Furthermore, the Agency is to set requirements and conduct monitoring through inspections and audits to ensure that adequate emergency response systems are in place to deal with acute pollution.

3.0 PURPOSE OF INSPECTIONS AND AUDITS

The purpose of Inspection is to ensure compliance with laid down environmental requirements, commitments, standards and other regulatory requirements whereas audit involves verifying the adequacy or otherwise of pollution prevention, control and/or abatement practices and/or techniques installed or intended to be installed to mitigate environmental impacts of a facility in order to meet the requirements of environmental laws, regulations, standards and guidelines.

Note: Guidance (information about and knowledge in the relevant laws/regulations) will be a natural part of inspections and audits. It is important to convey the expectations of the Agency regarding compliance with established requirements/relevant statutory framework. Information should also be provided about upcoming rules and regulations and potential ramifications for the company. Avoid giving advice that could be perceived as a recommendation or stipulation. Focus on priority areas/topics.

3.1 Inspections

An inspection is a control activity focused on a few specific topics which may take up to three (3) days (This excludes travel time). The purpose of the inspections could be to;

a. Determine compliance status with regulations, permit conditions, and other program requirements.
b. Verify the accuracy of information submitted by proponents.
c. Verify the adequacy of sampling and monitoring conducted by proponents.
d. Gather evidence to support any enforcement actions including complaints.

3.2 Audits

The purpose of an audit is to verify the organization's performance against regulatory standards and other requirements. It is also to verify the company's compliance with its own routines and procedures (management system/internal control).

4.0 PART A: AUDIT PROCEDURE

1. PRE-AUDIT ACTIVITIES ORGANIZATION PHASE

OBTAIN PRELIMINARY INFORMATIONS ON AUDITEE FILE

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REVIEW AND IDENTIFY MAIN AREAS OF CONSIDERATION

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- PREPARE AUDIT
- ORGANIZE RESOURCE
- DEVELOP VISIT PROGRAMME
- ALLOCATE SPECIFIC TASK TO TEAM MEMBERS

2. ONSITE AUDIT ACTIVITIES-ASESSMENT, MONITORING AND DATA COLLECTION

- INTERVIEWS WITH CROSS SECTION OF STAFF
- VERIFICATION OF RECORDS OF THE COMPANY
- FILED INSPECTION

↓

CONCLUDING SESSION

- DRAFT REPORT PREPARATION
- PRESENTATION OF DRAFT REPORT AND DISCUSSION WITH THE MANAGEMENT

3. POST-AUDIT ACTIVITIES - REPORTING AND ACTION PLAN

FINAL REPORT PREPARATION WITH RECOMMENDATIONS

ACTION PLANS WITH TIME FRAME FOR IMPLEMENTATION

FOLLOW UP AND IMPLEMENTATION OF ACTION PLANS

4.1 COMPOSITION OF THE AUDIT TEAM

4.1.1 Audit Team

An audit team must be established for all audits. The audit team and its leader are appointed by the head of department on the basis of available human resources, the individual's experience, expertise and knowledge of the organization/branch of industry to be audited.

An audit team must consist of at least two auditors. Technical experts may be included on the team as well. An audit team may also include auditors in training (own observers).

Those participating in the audit must agree well in advance on which tasks they will carry out during the audit.

4.1.2 Audit Team Leader

The audit team leader is responsible for all phases of the audit. The responsibilities of the leader include the following, as a minimum:

a. establish the scope and topics of the /audit;
b. ensure that documentation is gathered as efficiently as possible;
c. prepare and send an audit schedule to the organization;
d. prepare, forward and follow up the findings in the audit report;
e. take the final decision in case of disagreement within the audit team;
f. store and protect documents involved in the audit in a responsible manner;
g. ensure that documents are registered and stored correctly in the Agency's databases and systems;
h. keep the audit team apprised of all factors relevant for the audit;
i. ensure that Health, Safety and Environment (HSE) is taken into account as the audit is being implemented.

When the audit is carried out in cooperation with other Agencies, the leader is responsible for coordinating the audit activities and has the primary responsibility for the audit within the mandate of his or her own Agency.

4.1.3 Auditors

Their primary roles are to:

a. assist the leader with planning and execution of the audit;
b. conduct interviews on the topics for which he/she is assigned;
c. assist the leader with documenting, preparing and providing justification for instances of non-compliance and comments to be presented at the closing meeting.

4.1.4 Technical Expert

The person may be a schedule officer for the organization, a lawyer or an expert in one of the subject fields to be audited. The technical expert will:

a. contribute specific knowledge or expertise related to the organization, the process or the activity to be audited;
b. assist by providing knowledge and expertise in interviews;
c. take part in preparing information about instances of non-compliance and comments to be presented at the closing meeting.

4.1.5 Own Observers

The Environmental Protection Agency may have its own employees, representatives from MDAs or trainees present during the audit (where necessary). They will:

a. assist the team with note taking during the audit;
b. carry out instructions given by the leader.

4.2 Specific Roles and Responsibilities of the Audit Team

The primary role of the team is to gather site information that can be used to determine the reliability of the proponent's self-monitoring data and evaluate compliance with permit conditions, applicable regulations, and other requirements. In addition, the team plays an important role in case development and support. To fulfil these roles, auditors are required to know and use policies and procedures for effective audits and evidence collection.

a. The team must conduct all audit activities within the legal framework including:
   i. Presenting proper credentials.
   ii. Proper handling of confidential information.
b. The team must be familiar with the conditions of the specific permit and regulations.
c. The team must be familiar with general audit procedures and evidence collection techniques to ensure adequate audits and to avoid endangering potential legal proceedings on procedural grounds.
d. The team should observe the procedures for conducting each element of the audit process such as the following major audit activities:

Audit preparation:

i. Gather in-house information

ii. Establish scope of the audit

iii. Notification and information of the audit
iv. Preparatory meeting)
v. Gather information from the proponent (if not done in the preparatory meeting)
vi. Review all documentation and prepare checklists.
vii. Prepare a schedule for the audit

viii. Investigatory skills including the ability to gather evidence through good interviewing techniques and astute observation

Audit/ implementation:

i. Opening meeting
ii. Interviews
iii. Verification
iv. Closing meeting
v. audit report
vi. Follow-up

e. Auditors are expected to perform their duties with a high degree of professionalism. Procedures and standards of conduct listed below have been developed for the protection of the individual, as well as industry.

i. All audits are to be conducted with due regard for individual rights regardless of race, sex, religion, or nationality.

ii. The observations, findings, among others during an /audit are to be noted and reported completely, accurately, and objectively.

iii. In the course of an audit, any act or failure to act motivated by reason of private gain is illegal. Actions that could be construed as such should be avoided.

iv. Effort should be made to continually improve professional knowledge and technical skills in the relevant subject area.

f. The auditors are the initial contact between the Agency and the proponent. In dealing with facility representatives and employees, auditors must be professional, tactful, courteous, and diplomatic. A firm but responsive attitude will encourage cooperation and initiate good working relations.

g. Auditors shall dress appropriately by wearing protective clothing or equipment for activity in which they are engaged. As much as possible, auditors/ must provide their own appropriate Personal Protective Equipment (PPEs) and not depend on the auditee.

h. Auditors shall not accept favours, benefits, or job offers under circumstances that might be construed as influencing the performance of their duties. It is prudent to avoid the appearance of compromising these situations. If offered a bribe, the auditor must not accept and report the incident in detail as part of the final report.

4.3 Framework Conditions

4.3.1 Training and Competency Requirements

Auditors must have adequate knowledge of audit implementation, internal control, quality management, laws and regulations, as well as basic knowledge about the branch of industry to be audited. Leaders should have completed training in system-oriented audits and have experience with conducting audits within the Agency.

Auditors shall receive continuing education, as deemed necessary by the Agency, and Auditors skills shall include at a minimum:

a. Knowledge of the Agency's policies, laws, regulations, standards, guidelines and procedures
b. Ability to substantiate fact with items of evidence, including samples, photographs, document copies, statements from interviewees, and personal observations.
c. To evaluate what evidence should be collected during routine audits and follow-up audits.
d. Capacity to follow chain-of-custody procedures.
e. Capability to collect and preserve evidence consistent with law-making regulations.
f. Aptitude to write clear, objective, and informative audit reports.

NOTE: All auditors conducting audits in high risk facilities such as offshore installations and hazardous chemical plants should have completed the required safety training. This includes both general courses and courses specific to the industry.

4.3.2 Audit Reports

Audit reports from the Agency are public documents unless it contains information that exempts it from public disclosure. Steps must be taken to prevent information obtained from interviews from being traced back to the individual interviewee as far as possible. The report must consist of a list of instances of non-conformances and comments based on issues and systems and not on individuals.

4.3.3 Confidentiality

Sensitive business information to which the audit team gains access through interviews and verification procedures must be handled confidentially when the organization requests this and provides a reason. When the auditor is in doubt of the justification for the reasons given, consult the Agency for a decision on confidentiality to be taken.

4.4 Audit Preparation

4.4.1 Gather In-house Information

The archiving system must always be checked to find out about previous contact between the auditee and the Agency (permits, individual decisions, dispensations, letters, complaints etc.). Review the correspondence from previous audits and take special note of orders issued and deadlines for making improvements.

Contact the schedule officer well in advance of the audit to establish the scope and topic of the audit and to request any additional information. Refer to the procedure for preparing checklist to ensure that the necessary preparations have been made.

4.4.2 Establish the Scope of the Inspection/Audit

When planning an audit, it is essential to clarify the following:

a. The objective of the audit (e.g. to audit the organization's systematic activities, verify that corrective measures have been taken as a follow-up to previously implemented controls, map special circumstances, investigate problem areas).
b. The topics the audit will cover.
c. The units that are to be audited (e.g. the management, departments, groups, specific installations, etc.).
d. What the audit will encompass (systems, implementation, equipment, emissions level, etc.).
e. The verifications that will be implemented on buildings, installations, equipment, drawings, products, emissions, etc.
f. The time frame.
g. The fee

When deciding on the topic of the audit, it is important to check whether special guidelines have been set out in the audit plan. The plan must state whether this includes major accidents. The schedule officer should be consulted as well. It may also be useful to review the most recent periodic reports and the latest audit report. Consideration should also be given to whether the common topic for the audit year is relevant for the organisation.

4.4.3 Notification and Information on the Audit

Audits must always be announced well in advance (at least 6 weeks). The leader is to contact the organization to schedule a suitable time for the audit. This may be done verbally or by email.

When the time of the audit has been set, the leader will send a letter to the organization with information about the audit. The letter must contain information about how the audit will be conducted, when it will take place and who will participate.

4.4.4 Gather Information/ Preparatory Meeting

It may be beneficial to arrange a preparatory meeting with the auditee prior to the actual audit.

The purpose of a preparatory meeting is to:

a. explain and increase understanding of the Agency's purpose of the audit;
b. become as familiar as possible with the company, both the physical structures and the organizational structure;
c. gather relevant documents from the organization's systematic HSE activities;
d. identify and select individuals to interview;
e. clarify the practical details of the audit;
f. establish a good atmosphere for cooperation.

The meeting will normally be held at the organization to be audited, but it may also be conducted via electronic communication. If a preparatory meeting is not held, the information stated above must be shared/provided in another manner.

Gathered work documents that include confidential or protected information shall be safeguarded in a suitable manner.

4.4.5 Review of Documentation and Preparing Checklists

The team must review all the documentation that is gathered for the audit.

In planning the audit, the team must familiarize itself with the auditee's documented HSE activities (internal control system/management system) to the extent necessary. The documents from the archives of the Agency should be reviewed as well. These include permits, annual reports, periodic reports for the current year, previous audit and inspection reports, complaint investigation reports and enforcement notices (where applicable) and recent correspondence with the organization.

Checklists shall also be prepared as support for an evaluation of the various activities/topics, including a checklist for verification. Refer to Appendix 1 for a sample or template for audit and inspection checklist.

4.4.6 Audit Schedule

In advance of the audit, the leader must prepare a schedule showing the times of the individual interviews and verifications, and the time allocated for document review, etc. A schedule template should be prepared. The schedule should provide for adequate time for document review and planning interviews. This should be adapted to the organization's working hours.

A proposed plan must be sent to the organization well in advance of the audit for clarification and agreement. During the opening meeting, it is important to conduct a final review and update the plan.

Preparing the Audit Plan

Proper planning is essential to ensure the success of any audit programme. An audit plan is an organized approach to guide the conduct of an audit. The Plan should address the following:

a. Reason for the audit
b. Define the scope of the audit
c. Specify procedures
d. Define tasks and
e. Identify equipment and materials needed

Outline of Audit Plan

Background: The background should discuss the audit to be conducted.

Objective: Define what the audit visit is to accomplish. The objectives should be discussed and agreed on with the Head of Department prior to conducting the audit.

Tasks: The plan should also define tasks for accomplishing the objectives.

Resources: The plan should indicate the resources required both human and equipment.

These should include:

a. Protective clothing or equipment, appropriate for the site to be visited (coveralls, gloves, boots, safety glasses, hard hats, respirators, high visibility vests etc.).
b. Life jackets for sampling on or near water bodies.
c. Knowledge and requirements for workplace hazard information management system.
d. Equipment for sampling and analysis
e. Audio visual equipment such as cameras, video recorders etc

Schedules: The dates for (i) starting and finishing field activities, (ii) analytical work and (iii) draft and final reports should be established and agreed upon by the team.

The Plan will serve as the basis for explaining audit activities during the opening meeting. It should be shared with the organization before the opening meeting.

4.5 Audit Implementation

Audit implementation requires the team to visit the facility for the purpose of conducting the actual audit. It will involve engagement with facility managers, management and document verification among others.

4.5.1 Procedures for Facility Entry

The auditor must produce evidence of authority in the form of photo identity cards, letter of authority, entry permit, court orders and decisions etc.

4.5.2 Opening Meeting

An opening meeting is held at the start of the audit. The purpose of the opening meeting is to:

a. Formally introduce the team and the team leader
b. Discuss the objective and scope of the audit;
c. Explain how the audit will be implemented;
d. Confirm that the resources and materials needed by the audit team are available;
e. Review the audit schedule and make any changes if necessary.
f. Learn about the safety concerns and policy at the facility.
g. Agree on information to be considered as confidential by both parties

All those involved in the audit should be present at the opening meeting. It is desirable to have employee representatives at the meeting, preferably an employees' elected HSE representative.

Presentations for the opening meeting should be adequately prepared for the various types of audits (industry, chemical etc).

4.5.3 Interviews

Information will be gathered from interviews, document review and verification. During the interviews the auditor will ask key individuals questions about various conditions related to the audit topics. It is important to clarify during the preparation of the audit plan, as well as the interview, that the interviewee has the relevant knowledge/information about the topic.

If the organization wants several individuals to be interviewed on the same topic, then consideration should be given to conducting multiple interviews. It is normally most constructive to interview not more than two to three people at the same time.

All audit leaders and auditors in the Agency must follow good practice for interview techniques as presented in courses on system-oriented audits. Information provided during interviews may be verified by posing the same questions to different people, by observing actual conditions or by conducting random checks, checking registered information among others. All information and findings must be documented.

The audit team must focus on acquiring objective proof for the conclusions drawn. Responses to the questions asked should therefore be documented for later review and comparison with the rules and regulations. When reviewing special documents or equipment, the document number/equipment number, locations, etc. must be recorded.

Organization's Observer

As a general rule, the organization must be offered the opportunity to have its own observer in attendance during the interviews. However, it is up to the interviewee to choose whether s/he wants the observer to be present during the interview. The role of the observer should be clarified well in advance of the audit.

The audit team leader may refuse to allow the organization to have an observer if the presence of an observer will pose a serious disadvantage, the objective of the audit will be put at risk or in cases when the presence of an observer will conflict with legal provisions regarding the protection of sources of information.

If an observer from the organization is present, the following will apply:

a. The observer should not be an HSE manager with overall responsibility for the external environment or be part of the organization's management, as this may influence the interviewee's willingness to provide information.
b. The observer must conduct himself/herself in a neutral manner during the interviews and must not speak without permission from the auditor.
c. The auditor may ask the observer to clarify information, if necessary.

4.5.4 Verification

Verification of the information that has come to light will be conducted during the course of the audit. A verification may consist of e.g. a survey, document review, sampling or checks on labels/packaging.

Site inspection

A site inspection is to be conducted of various areas of the organization that are of relevance to the topic of the inspection/audit. Relevant locations for a site inspection may include:

a. Sampling and measurement stations
b. Treatment facilities for emissions and discharges
c. Warehouses for chemical and hazardous waste
d. Waste disposal sites
e. Laboratories
f. Control rooms
g. Points of emission (release or discharges)
h. General site inspection of processing facilities
i. Other areas as may be determined by the Agency

Adequate time should be set aside to ensure there is an opportunity to speak with employees who work at the sites being inspected. The Agency's requirements regarding safety and the use of protective gear must always be complied with during site inspection.

Document/Record Review

A verification may also consist of an examination of journals, logs, internal reports, etc. found in the production facilities.

An audit will always include a review of the organization's documentation. The review may be combined with the other audit activities and may be carried out throughout the entire audit. If it is not possible to obtain adequate documentation within the time frame stated in the inspection/audit schedule, the audit leader must decide on the next line of action.

When reviewing special documents or equipment, the document number/equipment number should be recorded.

Random Checks/sample Collection

It may also be appropriate to collect random samples during the course of an audit. When samples are collected, they must be clearly marked. It is important that the samples are packaged, preserved if necessary, and properly stored and analysed in accordance with the SOPs for sampling and good laboratory practices.

Use laboratories that are accredited for relevant analysis of the parameters if this is available. The Agency may require the organization/proponent/auditee to cover the costs of the analysis. The entity responsible for covering the costs must be clarified with the head of department in each case.

Photographs

It is important to take photographs to document conditions revealed during the audit. The Agency is entitled to take photographs, but there may be restrictions on making the photos available to the public in compliance with relevant regulations.

The organization must be informed in advance if it is likely that photographs will be taken. Duty of secrecy entails an obligation to ensure that others do not gain access to the relevant information, which therefore precludes the publication of photographs that convey such information. Furthermore, the Agency has a duty not to publish information that the company deems as business secret. i.e. information that will facilitate the performance of illegal acts if it becomes known. For example, this may apply to safety measures in a business area where photographing will facilitate potential acts of sabotage or it may be an area at risk of explosion (EX areas).

Note: A separate area has been created in SharePoint for storing photographs.

4.5.5 Closing Meeting

Preparation for the Closing Meeting

When the investigations are concluded, the audit team must formulate its conclusions. Any instances of non-conformance and comments must be formulated on the basis of the information gathered and the observations made. Only violations of requirements set out in or pursuant to legislation are to be referred to as instances of non-conformance; everything else is provided as comments, observations and recommendations.

All instances of non-conformance and comments/observations/recommendations must be explained. In the case of non-conformance, the relevant sections and paragraphs in the Act, regulations or permit and organization's own operational procedures must be referenced point by point.

Implementation of the Closing Meeting

When the audit is concluded, a closing meeting must be held in which the results of the audit are presented.

The purpose of the meeting is to clarify any misunderstandings or errors regarding observations and findings which are used as a basis for the instances of non- conformance and comments presented. The meeting is normally held within the organization's premises, and the audit leader chairs the meeting. The responsible manager for the organization or for that part of the organization being audited should take part in the meeting together with as many of the employees as possible who have been directly involved in the audit. Representatives/the employees' elected representatives should also be in attendance.

The audit leader presents the instances of non- conformance and comments/observations/recommendations so that they will be described in the audit report with the following points:

a. The description of the instance(s) of non- conformance must be self-explanatory and formulated as a complete sentence containing an assertion.
b. The non- conformance must have a basis in the regulatory framework, e.g. Act, regulations or permit. Do not use abbreviations.
c. The formulation of a comment must not be mistaken for an instance of non-conformance, a comment is an area with room for improvement.
d. Commentary explaining the finding of non- conformance and observations.
e. The description of areas that are commendable may be presented orally.

At the closing meeting, agreement must be reached with the organization regarding the actual conditions that serve as the basis for the instances of non- conformance and comments presented. If agreement is not reached, the audit leader may make an exception and give the organization a short deadline of a few days in which to obtain new information to clarify the conditions. This clarification may then be sent electronically to the audit

leader. If this results in a change in how the findings are formulated, this must be sent to the organization before the final report is submitted.

The audit team is solely responsible for assessing whether the actual conditions do not comply with the regulations. Positive conditions observed during the audit may be commented on in the final meeting. The audit leader must explain how the case will be followed up after the audit, including time for the organization to close the non-conformance.

A presentation should be prepared and presented at the closing meeting.

4.6 Post Audit Reporting

The audit team must prepare a report with the results after the audit is concluded. There is a designated report template that must be used. A blank report template is attached as Appendix 2 and may be obtained directly from the SharePoint available in Word.

As a general rule, instances of non- conformance and comments, observations or recommendations must not depart from the information presented at the final meeting, unless errors have been discovered. However, the wording of the instances of non-conformance and comments may be revised in the final report.

If there are conditions that the auditors believe have not been adequately clarified during the audit, these may be described under “Other conditions” in the report. The report is a public document, unless it contains information that exempts it from public disclosure. The report must be produced immediately after the inspection/audit and submitted to the Head of Department within a week.

4.7 Follow-Up

4.7.1 Instances of Non- Conformance and Comments

The report of the audit team together with documentation on the facility would be used to determine whether there is sufficient information or evidence to substantiate that a violation has occurred. Mitigation/remedial actions that would be prescribed must be consistent with the EPA Act 1994, Act 490, Environmental Assessment Regulations, 1999 (LI 1652) and other regulatory requirements, guidelines, standards and procedures of the Agency.

The team must keep track of the time limits set in the instructions to the company for any action that the Agency will require the company to undertake. A plan should be made to conduct a follow-up inspection visit after the deadline to determine level of compliance. If a violation is not found and a follow-up inspection is not deemed necessary, the company should be notified.

4.7.2 Follow-up of the Organization's Feedback

The Agency in assessing the organization's follow-up/correction of instances of non-conformance, the environmental risks caused by the non- conformance(s) with respect to the laws and regulations are given great attention. In order for the Agency to close the case, the organization must provide the Agency with adequate documentation to demonstrate that the instances of non-compliance have been corrected.

4.7.3 Registration in the Audit Database

All audits must be registered in the database.

In the case of audits included in the audit plan, the organization will be entered in advance, but most fields must be filled in during the audit. Before the report template is used, some of the fields must be filled in, i.e. times and participants.

For audits not included in the audit plan, the audit leader must create the audit and obtain an audit number. The audit results must be registered in the database system in a separate tab under audits. All the topics that were audited must be registered in the system under the audit result. This must also be done for the audit topics where no instances of non-compliance were found or comments were noted. Serious instances of non-compliance must be registered as serious non-compliance, and follow-up of the audit must also be entered in special follow-up.

When the report is completed, it must be uploaded immediately into the database as a PDF file.

4.8 Invoice

The Agency and the Auditee will agree on a budget during the planning of the Audit. The Auditee shall be invoiced by the Agency, to pay for the man hours of the auditors.

4.9 Accountability and Authority

The Deputy Executive Director/Technical Services is authorized to decide when it is acceptable to deviate from this document. The Deputy Executive Director/Technical Services of the Agency has the authority to revise the document.

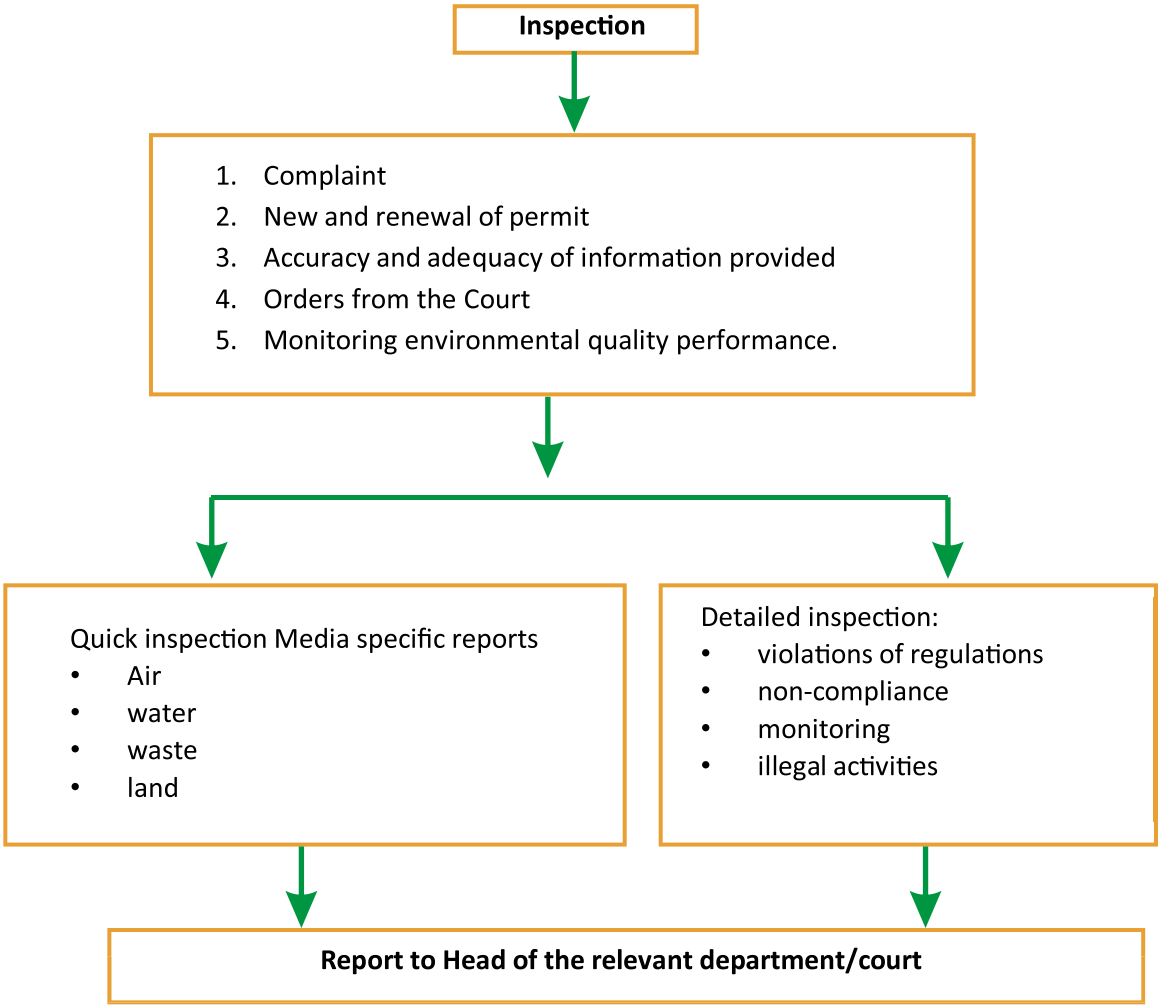
Notification of administrative charges shall be issued for all serious instances of non-conformance. Enforcements in accordance with LI 1652 shall apply. In this way the Agency brings attention to the conditions it considers to be the most serious. For other instances of non- conformance, the Agency will assess which conditions will require written feedback. All serious instances of non- conformance must be followed up with a written confirmation from the organization within a specified date stating that the problem has been remedied.

For serious regulatory breaches, the Agency may conduct a follow-up inspection within six weeks following receipt of feedback from the organization.

In general, the Agency does not require feedback on comments. There may be some exceptions to this, e.g. if stricter regulations are soon to take effect.

5.0 PART B: INSPECTION

Flowchart for inspection process



5.1 Objective of Inspection

The main objective of inspection is to:

a. Determine compliance status with regulations, permit conditions and other programme requirements;
b. Verify the accuracy of information submitted by an industry;
c. Verify the adequacy of sampling and monitoring conducted by the industry;
d. Gather evidences to support enforcement actions;
e. Obtain information that support the permitting process and
f. Assess compliance with enforcement notices and directives.

5.2 Types of Inspection

Based on the Agency's mandate inspection procedures can be categorized under three sub-groups, including:

a. Routine inspection
b. Inspection based on complaint
c. Legal inspection

5.2.1 Routine Inspection

Routine inspection is proactive and meant to guide proponents for better compliance of the permit conditions and while granting permits. It comprises a review of records and an evaluation of existing self-regulatory systems, following which recommendations can be given for further improvement. It may also include reconnaissance surveys to evaluate the operation and maintenance of pollution control (effluent and emission) devices, maintenance of storm water drains and overall housekeeping practices. These inspections are generally **prior informed**.

5.2.2 Inspection Based on Complaint

Inspections based on complaints from the neighborhood or other sources will be considered under this category. The specific area of complaints is investigated in this kind of complaint. Evidence is collected through photographs and samples collected for analysis, along with the inspection procedures on routine inspection.

In the case of neighborhood complaints, the views (through interviews conducted) of the complainant are recorded on the spot. These types of inspections are **uninformed/unannounced, i.e. surprise visits, and target- specific**.

5.2.3 Legal Inspection

Legal inspection can be carried out while granting permit or under direction from the government or courts.

The aim of a legal inspection is to take a legal sample as laid down in the legislation. A review of records, performance evaluation such as pollution-control (emission and effluent) devices, uses and misuse of storm-water drains and overall housekeeping will also be part of the legal sampling.

All the evidence, such as spillages from storm-water drains, improper outlets, inadequate maintenance of pollution-control devices and poor housekeeping, are photographed by the inspectors. All the records received from the facilities shall be signed by the authorized person of the facility surveyed.

5.3 Responsibilities of Inspector

In order to conduct a thorough inspection and gather information, the inspector must be knowledgeable about the requirements that apply to the activity. Tasks assigned to the inspectors may include

a. field surveillance;
b. complaint investigation;
c. facility inspections;
d. writing reports, recommending or serving notices of violation;
e. assisting in developing inspection plans;
f. Assisting in developing inspection checklist.
g. serving as a witness before a Hearing Committee or a court; or assisting in other operations, such as source testing or sample collection.

The inspector must carry credentials (ID proof and other relevant legal documents) to conduct inspection along with necessary details about the facility to be inspected.

5.4 Legal Requirements

Inspectors must conduct all inspection activities within the legal framework established under the law. The inspector must be knowledgeable of the conditions established in the permit, permissible limits, best environmental management practices, and any other applicable regulations, including any special requirements regarding entry to the facility.

Every inspection must be conducted with the view that the outcome can be a potential legal issue. The success of the entire case will depend on the expertise and professionalism of the inspector as a key witness.

5.5 Inspection Procedure

Inspectors must be familiar with general inspection procedures and evidence collection techniques to ensure complete inspections and to avoid endangering potential legal proceedings on procedural grounds.

These inspection procedures should include procedures for all aspects of inspections, including sampling, flow monitoring, and documenting the results of these activities in a manner that enables agency to produce evidence that is admissible in a court action. Procedural duties of Inspectors are provided below:

5.5.1 Pre-Inspection

a. Establish the purpose and scope of the inspection.

b. In certain situations, consider sending a previous inspection finding in a form of a report to the facility representative to make any updates which have not been previously reported. Request a revised version to be returned prior to inspection.

c. Review all pertinent background information, such as permit, previous application and inspection reports on the facility's file.

d. Review any compliance reports and self-monitoring reports required by the permit.

e. Contact the authorized personnel for the facility on the intended inspection.

f. Develop a plan for the inspection.

g. Prepare any documents and equipment necessary for the inspection.

h. Coordinate scheduling with the laboratory if samples will be collected.

i. Contact responsible party for transporting samples and for packing/shipping/preservation requirements.

j. Obtain appropriate safety clothing or equipment (e.g., hard hat, protective steel-toed boots, safety glasses, ear plugs).

k. If the facility has a laboratory on site, review laboratory records for Quality Assurance and Quality Control (QA/QC) and monitoring data (e.g., flow, pH, air quality).

l. If the facility has a laboratory on site, review laboratory procedures to verify the use of approved methods.

5.5.2 Facility Entry

a. The inspector must produce evidence of authority in the form of Staff identity cards, letter of authority, entry permit, court orders and decisions, etc. clearly identify yourself and any other members of the inspection team.

b. Do not sign any enforcement waivers or documents forbidding evidence collection.

c. Manage denial or withdrawal of entry, if necessary.

5.5.3 Opening Meeting/Briefing

a. Discuss inspection objectives and scope.

b. Based on the level of experience of facility contact (new or old contact?), give an overview of the inspection.

c. Establish a working relationship with the facility contact. Review the facility's records (e.g. including self-monitoring, treatment system O&M records, hazardous waste manifests, and other records of offsite disposal) and the facility's permit.

d. Discuss the need to gather information, including taking photos and videos

e. Verify the accuracy of the information provided for the most current permit issuance including

   i. Chemical supply, storage, transfer, handling;
   ii. Raw materials, feedstocks used;
   iii. Industrial process use or service provided;
   iv. Waste stream generation and management methods (recycling/reuse, treatment, disposal, etc.).
   v. Discharge of waste streams.

5.5.4 Facility Inspection (operations walk-through)

a. Conduct visual inspection of the entire facility.
b. Review overall monitoring equipment and systems such as pollution control systems including wastewater treatment and air handling systems.
c. Inspect monitoring equipment, treatment process(es), and operations.
d. Review hazardous waste records.
e. Collect samples.
f. Document inspection activities (e.g., take notes, videos and photos, complete inspection checklist).

5.5.5 Closing Meeting/ Debriefing

a. Obtain additional information.
b. Identify inspection goals that were not achieved (e.g. if you needed to see something that was not possible that day.)
c. Clarify questions and answers with facility officials.
d. Review preliminary inspection findings and inform facility officials of follow-up procedures.
e. Never make inspection determinations on the field.

5.5.6 Inspection Report

a. Organize inspection findings into a useful, objective evidence package.
b. Include all identified deficiencies and required activities.
c. Prepare the narrative report, checklists, and documentary information, including photos and sampling results.
d. Review any findings of noncompliance with enforcement personnel and supervisor, when necessary.
e. Enter findings into the tracking database, as appropriate.

5.6 Evidence Collection

Inspectors must be familiar with general evidence gathering techniques. These notes and documentation will be used for preparing the inspection report, determining the appropriate enforcement response, and giving testimony in an enforcement case.

Inspectors must know how to:

a. Substantiate facts with items of evidence, including samples, photographs, videos document copies, statements from witnesses, and personal observations.
b. Evaluate what evidence should be collected (routine inspections).
c. Follow chain-of-custody procedures.
d. Collect and preserve evidence
e. Write clear, objective, and informative inspection reports.

5.7 Safety

The inspection of facilities always poses a certain degree of health and safety risk. To avoid unnecessary risks, the inspector should be familiar with all safety obligations and practices. The safety equipment and procedures required for an inspector will be based on either standard safety procedures or the site-specific information from the facility.

Inspectors should do the following:

a. Use safety equipment in accordance with available guidance and labeling instructions.
b. Maintain safety equipment in good condition and proper working order.

c. Dress appropriately for the activity and wear appropriate protective clothing provided by the Agency. For example, appropriate protective gloves should be worn during sample collection to protect the inspector and to prevent the potential for sample contamination. Disposable gloves are preferred to assure that no cross contamination occurs between sampling points.
d. Use any safety equipment customary in the establishment being inspected (e.g., hard hat or safety glasses).
e. Never enter confined spaces unless properly trained, equipped, and permitted (if applicable).

5.8 Professional/ Ethics

All inspections are to be conducted with due regard for individual rights regardless of race, sex, religion, or nationality.

a. Inspectors are to conduct themselves at all times in accordance with applicable legislation.
b. The facts of an inspection must be noted and reported completely, accurately, and objectively.
c. During an inspection, any act or failure to act motivated by private gain is illegal. Actions that could be construed as such should be scrupulously avoided.
d. A continuing effort should be made to improve professional knowledge and technical skill in the inspection field.

Inspectors may not accept favors, benefits, or job offers under circumstances that might be construed as influencing the performance of governmental duties. It is prudent to avoid even the appearance of compromising national legislations and standards. If offered a bribe, the inspector must not accept money or goods.

5.9 Quality Assurance

The inspector must assume primary responsibility for ensuring the quality and accuracy of the compliance inspection and the integrity of samples collected. While other organizational elements play an important role in quality assurance, it is the inspector who must ensure that all data introduced into an inspection file are complete, accurate, and representative of existing conditions.

5.10 Knowledge and Skills

The inspector should at least have the listed knowledge set in order to be able to perform the inspection duties. National legislations, standards and permissible limits.

a. Any applicable facility permits requirements.
b. Toxic constituents and conventional pollutants in waste discharges.
c. Industrial processes and where waste streams are generated.
d. Spill control procedures.

e. waste and flue gases treatment technology.

f. Pollution sampling and analytical methods.

g. Flow measuring techniques.

h. The treatment facility and how it operates.

Inspectors should have the ability to:

a. Inspect waste treatment facilities.

b. Assess representativeness and quality of data and information.

c. Assess impacts of various types of pollutants.

d. Identify safety hazards associated with the facility's operation.

e. Evaluate and select monitoring locations.

f. Read and interpret appropriate technical drawings such mechanical construction drawings and pipeline schematics.

g. Practice professional ethics.

h. Deal tactfully and effectively with industry representatives.

i. Understand other viewpoints and work with industries and other regulatory agencies.

j. Maintain accurate records and write clear and concise reports.

k. Prepare and maintain proper files and documentation on work performed.

l. Keep confidential information and trade secrets.

5.11 Inspection Procedure

5.11.1 Pre-inspection

Pre-inspection activities are crucial for conducting efficient and effective inspections because they provide a focus for the on-site inspection activities. This background work should be completed beforehand so that inspectors can use their time efficiently when they arrive at the facility.

During inspection planning, the inspector must identify all activities relating to the inspection, from its objective through its execution and follow-up. An inspection plan will explain "why" the facility is being inspected, "what" should be looked for, "how" it will be found, and "where" the inspector should focus attention. This preparation will ensure that the inspector gathers appropriate information for the subsequent compliance

determination or enforcement purposes. By the time the inspector goes into the field, he or she should:

a. Have a clear idea of the objective for the inspection (e.g., investigation of a reported spill or complaint, routine compliance inspection). The objective will define the scope of the inspection (i.e., the range of activities to be conducted during the inspection). The objective will depend on what type of inspection is being conducted (i.e., scheduled/routine or on-demand).
b. Know all applicable regulations, compliance history, and physical layout of the site including the facility layout to help define the scope of activities the inspector will undertake at the facility.
c. Know the SOPs for how an inspection should be conducted (e.g., the type of inspection activities to be conducted, familiarity with the inspection tool/checklist to be used, who should be interviewed).
d. Know sampling and QA/QC protocol.

Pre-inspection preparation can be divided into the following activities:

a. Reviewing facility background information
b. Presence of pollution control & treatment systems
c. Permit requirements, regulation and standards
d. Facility compliance & enforcement history
e. Developing an inspection plan

5.11.2 Review of Facility Background Information

The inspector must determine the amount of background information necessary for the inspection, and in collecting this information should focus on the characteristics that are unique to the targeted facility (e.g., design and physical layout, historical practices and compliance status, legal requirements).

The various components in this category include:

a. Maps showing facility location, sampling points and geographical features;
b. Plant layout and process flow diagram;
c. Name, title, phone numbers and other contact details of the responsible facility officials;
d. special entry requirements (public sector undertaking/defense establishment);
e. Any safety requirements (e.g shoes, gloves, helmet);
f. A description of processing operations and wastewater discharges/ emission/ hazardous waste generation;
g. Production levels—past (for the last one year), present and future;
h. Hydrological data;

i. Meteorological data;
j. Geology and hydrogeology of the area;
k. Changes in facility conditions since previous inspection/permit application and
l. Aerial photographs, satellite images, etc if necessary.

5.11.3 Pollution Control and Treatment Systems

The following is the list of information required among others:

a. Description and design data for pollution control system and process operation;
b. Sources and characterization of discharge;
c. Type and amount of waste discharged;
d. Spill prevention contingency plans;
e. Available routes for bypasses or diversions and spill containment facility and
f. Pollution control units, treatment methods and monitoring systems.

5.11.4 Legal Requirements and Standards

Once the basic data about the concerned facility is received, the following documents are required to be checked:

a. Copies of existing permits and conditions, regulations, requirements and permissible limits;
b. Monitoring and reporting requirements and available monitoring stations;
c. Special exemptions and waivers, if any;
d. Information concerning sludge, air, solid and hazardous-waste treatment and disposal; and
e. Status of air quality of the area.
f. Noise nuisance status

5.11.5 Facility Compliance and Enforcement History

The following is the list of the information that should be collected:

a. Previous inspection reports;
b. Correspondence with the facility;
c. Complaints and reports, follow-up studies, remedial actions;
d. Documentation on past compliance violations, exceedance, status of requested regulatory action(s);
e. Enforcement actions such as compliance schedule and enforcement notices;
f. Status of current and pending litigation against the facility;
g. Self-monitoring data and reports;
h. Previous deficiency notices issued to facility;

i. Laboratory capabilities and analytical methods used by facility;
j. Names of contract laboratory, Environmental Monitoring Returns, Previous Discharge Monitoring Report (DMR), Quality Assurance (QA) files and reports, Permit-Compliance information;
k. reports from special studies (e.g. stream monitoring, internal Reports from meteorological studies, air quality modelling etc.

5.11.6 Development of Inspection Plan

An inspection plan needs to be developed on the basis of the information gathered keeping in mind the following parameters:

Objectives:

a. What is the purpose of the inspection?
b. What is to be accomplished?

Tasks:

a. What tasks are to be conducted?
b. What information is to be collected?
c. What records are to be reviewed?

Procedures:

a. What procedures are to be followed?
b. Will the inspection require special procedures?

Resources:

a. What personnel will be required?
b. What equipment will be required?

Schedule:

a. What will be the time requirements and order of inspection activities?
b. What will be the milestones/targets for each inspection?

Collaboration:

a. What collaboration with laboratories or other regulatory agencies will be required?

5.11.7 Off- site Surveillance

The inspector should document the following information when conducting off-site surveillance:

a. Location of the off-site surveillance: Was the off-site surveillance conducted from a public right-of-way?

b. Facility layout and orientation: A brief sketch of the layout and orientation (as viewed from the public right-of-way) should be noted.
c. Visible concerns: What are some obvious concerns visible from public right-of-way (e.g., visible stack emissions, odour, containers, loading areas, tanks, obvious discharges, improper disposal)?

5.11.8 Opening Meeting

The opening meeting establishes a forum for exchanging information between the inspector and facility personnel. This information exchange should focus on the inspection, but it does not need to be limited to the inspection itself. Once credentials have been presented, the inspector can proceed to outline inspection plans with facility officials. At the opening meeting, the lead inspector provides names of the inspectors, the purpose of the inspection, authorities with which the inspection is being conducted, and procedures to be followed.

List of Records

A list of facility records that will need to be reviewed as part of the inspection should be provided to facility officials (i.e., permits, DMRs, EMRs, chain-of-custody forms, sampling data, operation and maintenance records, training records, laboratory data sheets, and other records can be requested depending on the type of inspection being performed). This will allow the officials adequate time to gather the records and make them available to the inspector.

Facility Tour Guide

It is important that a facility official accompany the inspector during the inspection (unless the facility is unmanned) not only to answer questions and describe the plant and its principal operating characteristics, but also for safety and liability considerations. Discussion of such needs with facility officials will provide them the opportunity to allocate personnel for this purpose, however, in some circumstances, the facility official may choose not to accompany the inspector. Even in these situations, the inspector should talk to the personnel responsible for performing sample collection and analysis, or other relevant functions, to gather specific information on these procedures (including required knowledge of responsible personnel).

Permit Verification

The inspector should verify pertinent information included in the permit, and the documents submitted to the Agency. The information may include the facility name and address, receiving media, and discharge points. The inspector should also validate (or obtain) accurate outfall location data (i.e., the precise latitude and longitude of each outfall using a hand-held GPS unit).

5.11.9 Documentation

During the on-site phase of an inspection, the inspector must take notes and/or completes a checklist (hard copy and/or electronic) to provide documentation of all inspection activities. It is important for the documentation to accurately reflect the conditions observed by the inspector at the facility. The language used in recording the inspection information should be objective, factual, and free of personal feelings. The inspector's

notes should not contain opinions or any observations not supported by facts. Information should be recorded in permanent ink for hard copy documentation. ***If modifications to the notes are made, the inspector should initial and date the modifications***.

Inspection Notes

An inspector may need to testify in an enforcement proceeding. Therefore, it is imperative that each inspector keep detailed records of inspections, investigations, samples collected, and related inspection functions. An inspector should note the date and time of arrivals and departures each day of the inspection and document the sequence of events during each day of the inspection. Types of information that should be entered into the field notebook include the following:

a. Observations

Record all conditions, practices, and other observations that will be useful in preparing the inspection report or that will validate other types of evidence. For example, weather conditions such as rain events prior to and during the inspection are useful and can assist the inspector in determining whether inflow/infiltration is a problem with the facility, or whether stormwater controls were adequate.

b. Documents and Digital Images

All documents taken or prepared by the inspector such as the completed checklists for the inspection report should be noted and related to specific inspection activities. The inspector should adequately document each digital image so that its content can be properly identified with the site, date, GPS coordinates (if available), photographer name, and description of the digital image.

c. Interviews and Statements

Inspectors may attempt to obtain a formal statement from a person who has personal, firsthand knowledge of facts pertinent to a potential violation. In most inspections, the majority of information will be collected through informal statements and interviews. The inspector should interview as many of the facility personnel as possible to prepare an accurate description of the facility and its operations.

d. Drawings and Maps

Schematic drawings, maps, charts, and other graphic records can be useful supporting documentation. They can provide graphic clarification of site location relative to the overall facility, relative height and size of objects, and other information which, in combination with samples, photographs, and other documentation, can produce an accurate, complete evidence package. Electronic maps of the facility, available through ***Google Earth***, should be obtained prior to the inspection and used to verify any changes that may have occurred since the ***Google Earth*** image was taken.

5.11.10 Closing Meeting/De-briefing

At the end of the inspection, the Inspector may inform the representative of the industry about apparent non-compliance observed during inspection so that industry may initiate necessary corrective action wherever required.

5.11.11 Inspection Report Preparation

The inspection report must have following attributes:

a. **Accuracy**: the information must be factual and based on sound inspection practices. observations should be the verified result of firsthand knowledge. Inspection personnel must be able to depend on the accuracy of all information.

b. **Relevance**: information in the inspection report should be pertinent to the objectives of inspection. Irrelevant facts and data will clutter a report and may reduce its clarity and usefulness.

c. **Comprehensiveness**: Suspected violation(s) should be substantiated by as much factual, relevant information as is feasible to gather. The more comprehensive the evidence is, the better and easier the outcome of any enforcement action will be.

d. **Coordinated**: All information pertinent to the subject should be organized into a complete package, documentary support (e.g. photographs, statements, sample documentation etc.) accompanying the report should be clearly referenced so that anyone reading the report will get a complete, clear overview of the situation.

e. **Clarity**: The information in the report should be presented in a clear, well-organized and logical manner.

5.11.12 Record Keeping

All relevant documentation generated, obtained, and used in supporting inspection findings, conclusions, and recommendations should be retained for an appropriate period of time (at least 5 years).

APPENDIX 1: CHECKLIST TEMPLATE

AP: 1-1 Inspection Checklist for Healthcare Facilities

1. General Information

Name of Healthcare Facility	
Contact Details	Postal Address: Tel.: Email:
Location (Street/ Area Name, Landmark Municipality & Region)	Street/Area Name: Municipality:
Ghana Post Address/GPS Coordinates	
Contact Person Details	Name:
	Tel.:
Position	

2. Site Description

North	
South	
East	
West	
Predominant Land Use Description[1]	
Parking capacity & observation[2]	

3. Management / Services

Type of facility (clinic, diagnostic centre, morgue/ funeral homes, lab, etc)			**Hospital**			
Ownership	Government		Quasi- Government		Private	
Services Provided	Diagnostic		OPD		Morgue	
	Laboratory		Pharmacy		Theatre	
	Radiotherapy		X-Ray		Physiotherapy	
	Specialized Clinics[3]					

[1] Description of predominant land use within the locality (commercial, residential, industrial, mixed use, etc)
[2] Comment on aadequacy of parking and disability parking provision
[3] Specialized clinics e.g. ENT, Cardio, Dialysis, Radiotherapy, pediatrics, Obs and Gynecology

Type of facility (clinic, diagnostic centre, morgue/ funeral homes, lab, etc)				**Hospital**			
		Others					
Bedded		No. of Beds		No. of admissions		OPD Attendance Frequency	
		Antenatal attendance					
Non- Bedded		OPD Attendance Frequency					
Capacity of morgue			No. and capacities of fridges				
Staffing		Management		Medical Staff		Administrative	
		Paramedical Staff		Casuals		Others (Security, Kitchen Staff, etc)	
		Total Staff					

4. Statutory permits

Institutions/ Permits	**Availability**				**Validity**				**Comment**			
EPA	Yes		No		Yes		No		Permit displayed?	Yes		No
GNFS	Yes		No		Yes		No					
HeFRA	Yes		No		Yes		No					
Factories Inspectorate	Yes		No		Yes		No					
Others (Specify)	List permits and comment on their validities											

5. Waste Management

		Response				Comment
5.1	Availability of copy of EPA Health Care Waste Management guidelines	Yes		No		
5.2	Awareness of the provisions of the Hazardous and Electronic Waste Control and Management Act 2016, Act 917 on healthcare waste management	Yes		No		
5.3	Awareness of the provisions of the LI 2250 applicable to health facilities	Yes		No		
5.4	Availability of in-house waste management policy? (Note: If yes, ask for a copy/ take a photograph if pasted on wall)	Yes		No		
5.5	Availability of Waste Management Plan (WMP) / mode of disposal of biomedical wastes	Yes		No		
5.6	Is there a Waste Management Committee (WMC)	Yes		No		
5.7	If Yes, what is the composition of the WMC					
5.8	At what frequency does the WMC meet					

		Response				Comment
5.9	Is waste segregated?	Yes		No		
5.10	If Yes, is waste segregated at source?	Yes		No		
5.11	Is waste segregation practiced as per colour coding of LI 2250 (Note: Take photographs)	Yes		No		
5.12	Are there well labelled bins	Yes		No		
5.13	Are the bins lined with the appropriate colour coded bags in accordance with the LI2250	Yes		No		
5.14	Are the waste bins transparent	Yes		No		
5.15	Are the waste bins impervious to moisture	Yes		No		
5.16	Are the waste bins strong to prevent damage during handling or use	Yes		No		
5.17	Are the waste bins puncture resistant	Yes		No		
5.18	Are waste bins fitted with handles for easy manipulation	Yes		No		
5.19	Are waste bins pedal operated and in good working condition	Yes		No		
5.20	Are waste bins light in weight and convenient for lifting	Yes		No		
5.21	Are waste bins leak proof	Yes		No		
5.22	Are waste bins designed to minimize physical contact	Yes		No		
5.23	Are waste bins at generation source properly closed	Yes		No		
5.24	Availability of waste generation records	Yes		No		
	If yes, does record include the following?					
	a. Date of generation	Yes		No		
	b. Weight/ volume of waste	Yes		No		
	c. Source of generation	Yes		No		
5.25	Are waste bags tied up before transport?	Yes		No		
5.26	Are waste bags stored in closed containers to avoid spillage and contamination	Yes		No		
5.27	Is there a designated area or room for interim waste storage on site?	Yes		No		
5.28	If yes, is storage area located away to prevent potential cross contamination?	Yes		No		
5.29	What is the storage capacity of interim storage facility (floor dimensions)					
5.30	Is the waste storage area well labelled	Yes		No		
5.31	Is access to waste the storage area/ restricted	Yes		No		
	Is waste storage area easily accessible to staff in charge of handling waste and waste collection vehicles	Yes		No		
5.32	Is the waste storage area well lit and ventilated	Yes		No		

		Response				Comment
5.33	Is the waste segregated in the interim storage area (photograph)	Yes		No		
5.34	Is the waste protected from sunlight	Yes		No		
5.35	Is the floor of the storage area impermeable	Yes		No		
5.36	Does the storage area have a good drainage system	Yes		No		
5.37	Is storage area designed to easily clean and disinfect	Yes		No		
5.38	Is the storage area connected with water supply for cleaning purposes	Yes		No		
5.39	Is the waste storage area located close to the source of cleaning equipment, PPEs and waste bags	Yes		No		
5.40	How is waste transported to the interim storage area					
5.41	How frequent is waste transferred to the interim storage location in a day					
5.42	Is waste stored under controlled conditions	Yes		No		
5.43	Is there proper housekeeping at the waste storage area?	Yes		No		
5.44	For what duration is waste stored before treatment/disposal	0-24hrs				
		24-48hrs				
		>48hrs				
5.45	Is waste treated on site	Yes		No		
5.46	If Yes, what are the treatment methods?					
5.47	Disinfection and disposal	Yes		No		
5.48	Autoclaving and disposal	Yes		No		
5.49	Burial on site	Yes		No		
5.50	Microwaving/Hydroclaving and disposal	Yes		No		
5.51	Chemical preparations declared as waste, impotent or obsolete severely weakened by infinite dilution with water before disposal	Yes		No		
5.52	Open burning on site	Yes		No		
5.53	Incineration	Yes		No		
5.54	If yes,					
	i. Is the incinerator close to the interim waste storage area?	Yes		No		(if necessary, indicate approximate distance)
	ii. Is incinerator part of original design of facility	Yes		No		
	iii. If incinerator was not part original design, did you obtain a permit to construct and operate the incinerator?	Yes		No		

		Response				Comment
	iv. What is the capacity of the incinerator (kg/hr)					
	v. At what temperature is incineration done					
	vi. What is the chimney height					
	vii. Less than 15m					
	viii. More than 15m					
	ix. Is incinerator installed with a pollution control system	Yes		No		
	x. How often is incinerator ash collected					
	xi. Is the ash stored in properly closed containers to prevent from wind blowing	Yes		No		
	xii. Is incinerator ash treated before disposal	Yes		No		
	xiii. How is incinerator ash disposed					
	xiv. Is there proper housekeeping at the incinerator location?	Yes		No		
	xv. How often is incinerator maintained?					
	xvi. Are infectious materials soaked in bleach solution before disposal	Yes		No		
5.55	If answer in section **5.53** is No, provide the following information					
	i. Name of waste management company					
	ii. Does waste management company have a valid EPA permit	Yes		No		Check for copy of permit
	iii. How is waste transported to treatment/disposal site					
	iv. Availability of waste transfer records (waste manifest)	Yes		No		
5.56	Are obsolete chemicals and expired drugs referred back to suppliers or regulatory bodies such as the EPA for appropriate disposal.(request for evidence)	Yes		No		
6.0	**Wastewater Management**					
		Response				Comment
6.1	How is sanitary wastewater treated and discharged?					
6.2	How is non-sanitary wastewater treated and discharged?					
6.3	Availability of wastewater treatment facility	Yes		No		

		Response				Comment
6.4	If yes, is wastewater from the morgue channelled into water treatment plant	Yes		No		
6.5	If answer is no, how is wastewater from the morgue treated and discharged					
6.6	Is the quality of wastewater generated in the entire facility monitored before discharge (check records)	Yes		No		
6.7	Availability of effluent sampling sites	Yes		No		
6.8	What is the capacity of the wastewater treatment plant and its efficiency					
	How is the treated effluent discharged/used					
7.0	**Odour management**					
7.1	Are there measures in place to prevent or minimize odour generation	Yes		No		
7.2	If yes, what are the measures					
8.0	**Water and Electricity Consumption**					
8.1	Monthly electricity consumption in kWhrs					
8.2	Alternative sources of energy available					
8.3	Availability of standby generator	Yes		No		Comment on fuel type
8.4	Water sources for facility's operation					
8.5	Monthly water consumption					
9.0	**Environmental Reporting**					
9.1	Annual Environmental Report submitted to EPA in accordance with Regulation 25 of LI 1652.	Yes		No		
9.2	Quarterly monitoring returns submitted	Yes		No		
9.3	Environmental Management Plan submitted	Yes		No		
10.0	**Compliance with Standards**					
10.1	Compliance with Ghana standard for environmental protection-requirements for effluent discharge (GS1222,2019)	Yes		No		
10.2	Compliance with Ghana standard for Environment and Health Protection-requirements for ambient air quality and point source/stack emissions (GS1236,2019)	Yes		No		
10.3	Compliance with Ghana standard for Environment and Health Protection-requirements for ambient noise (GS1222:2018)	Yes		No		

11.0 Training and Awareness Creation

		Response				Comment
11.1	Are trainings organized for staff on best environmental practices	Yes		No		
11.2	Training areas					
11.3	Training records	Yes		No		
11.4	Are staffs trained on the contents of environmental permit	Yes		No		

12.0 Health and Safety

		Response				Comment
12.1	Provision of PPEs	Yes		No		
12.2	Records on accidents/exposures	Yes		No		
12.3	Accident investigation	Yes		No		
12.4	All containing vessels and operating instruments disinfected	Yes		No		

13.0 Complaints Management

		Response				Comment
13.1	Do you receive complaints about your operation	Yes		No		
13.2	Do you have a complaints register(check)	Yes		No		
13.3	Do you have a procedure for complaints management/ resolution	Yes		No		

AP: 1-2 AUDIT CHECKLIST FOR OIL SPILL EQUIPMENT AND RESPONSE

BACKGROUND INFORMATION

Name of Auditor: _____

Date of Audit: _____

Name of Audit Site: _____

GPS Location: _____ _____

Ref.	OSCP Ref.	Responses (Yes/No)	Comments
A	**Plan**		
A1	Revision of OSCP		
A2	Operational Plans		
B	**Introduction**		
B1	Scope		
i	The coverage of the plan		
ii	Operations of facilities which it covers		
iii	Spill Response procedures		
iv	Integration of the plan into other management plans		
B2	Risk Assessment		
i	Updated risk assessment		

Ref.	OSCP Ref.	Responses (Yes/No)	Comments
ii	Areas of operations		
iii	Sources of spills		
iv	Resources at risk		
B3	Spill Reporting		
i	Name or title and 24-hour telephone numbers of the operator's Qualified Individual?		
ii	Criteria or basis for the operator's determination of significant and substantial harm? What is the Worst-Case Discharge for the Plan?		
C	**Prevention and Preparedness**		
C1	Do you have an emergency response team?		
C2	Criteria for selection of individuals into the response team		
C3	What is the strength or numbers of the team?		
C4	Where is the team located?		
	How is the team organized?		
C5	Type of training for the response team (Desktop or Field)		
C6	How often do you carryout trainings for the emergency teams?		
C7	Has the response time been tested and which teams was tested		
i	Numbers		
C8	Any incidents recorded during response exercises and what is your follow-up		
C9	Mechanisms for updating the plan		
C10	Response team structure and responsibilities		
i	Incident management team		

Ref.	OSCP Ref.	Responses (Yes/No)	Comments
ii	Crisis management team		
iii	Emergency response team		
C10	Maintenance of response preparedness		
i	Training programmes		
ii	Database of trainings and attendees		
D	**Response Actions**		
D1	How do you respond to unknown volumes of oil spill?		
D2	Any spills recorded		
D2	Reporting requirement and sequence		
D2	Incident management team call-out procedures		
D3	Location of the Incident Command Center (ICC)		
D3	Incident assessment procedures in place		
D4	On-going monitoring procedures		
i	Surveillance		
ii	Trajectory modelling		
iii	Oil fate/behavior model		
D6	Contact Directory		
i	Spill response agencies		
ii	Key company personnel		
E	**Equipment and Dispersant Management**		
E1	What range of equipment you have to help you respond to any tier of oil spill?		
E2	The pollution response equipment is maintained in good condition under the control of a functioning and managed planned maintenance system		

Ref.	OSCP Ref.	Responses (Yes/No)	Comments
E3	What are the conditions or servicing regimes for the equipment?		
i	Equipment maintenance is recorded, and records are available		
ii	Equipment defects and failures are recorded and monitored.		
iii	Where are the locations of the equipment for the various tiers?		
iv	Dispersant stock approved (Proof of the date of purchase should be retained as evidence)		
v	Dispersant stocks (both the liquid and the containers) are properly stored and are subject to a management plan for testing and replacement.		
vi	What type of dispersant application system is in place?		
vii	Capacity for detection and monitoring of dispersant effectiveness		

AUDIT CHECKLIST (QUESTION GUIDE)

1. Oil Spill Plan

a. Can you explain the process of elaborating the Oil Spill Contingency Plan (OSCP)?

b. Oil spill data, environmental data, etc?

c. Has the OSCP been revised or updated

d. When was the last update done?

e. Does the plan include management approval? (ask for evidence)

f. Has the latest version been submitted to the Agency (follow-up question to b.)

g. Explain the factors that triggers the update and revision of the plan

h. Can you explain your systems that have been put in place to ensure that the emergency preparedness plans are updated?

i. Do you have operational procedures integrated into the oil spill response plan?

j. Has there been any joint agreement for use of emergency preparedness resources and if such agreement has been submitted to the Agency.

k. To what extent have you ensured coordination between national emergency institutions such as the EPA.

l. Has there been any updated risk assessment conducted for the project and whether it has been incorporated in the emergency response plans

m. Do you always keep a copy of the OSCP and Oil Record Book on all your facilities (physical inspection may be required)?

n. Does the Plan include procedures and a list of resources for responding to the maximum extent practicable, to a worst-case discharge?

o. Does the Plan include incorporations by reference instead of procedures for response?

p. Does the Plan include response activities?

q. Does the operator identify the response resources that are available to respond to an incident?

r. Does the Plan identify environmentally and economically sensitive areas?

2. Training

a. How many training and exercises have you undertaken this year

b. What is the target group for the training exercises?

i. What level of training was offered

ii. Do you have any requirements for the selection of the training personnel?

iii. How many people have trained to date and any documentation to indicate the names and level of training received

c. Explain which areas of your operations has the training been targeted

d. Any challenges/ incidents/ defective equipment recorded during response exercises?

e. How are they followed up? – ask for evidence

3. Response

a. What type of exercises was held (Desktop or Simulation)

b. What was the objective of the response exercises

c. Can you tell us the response time for these exercises?

d. Briefly give an overview of the response team and responsibilities

e. Do you have an updated contact directory for spill response Agencies?

4. Equipment and Dispersant

a. Can you briefly explain the kinds of equipment you have currently and where they are located (possible documentation may be required)?

b. What suitability assessment was conducted to purchase the equipment?

c. Have you performed any maintenance on the equipment (maintenance history of equipment may be requested for)?

d. Can you explain the usage and limitations of the various equipment?

e. What are the main logistical challenges/ bottlenecks?

Do you have an inventory of dispersants for spill response (ask for evidence of approval)?

APPENDIX 2: INSPECTION/ REPORT FORMAT

The inspection/ audit report must follow the following outline:

Heading: This should include the type of inspection/audit, site or activity name, and the date of the inspection/audit.

Purpose of Inspection/Audit: State the aim and the objectives of the inspection/audit

Inspection Team: Names, positions or titles.

Company Information/Site History: This may include name of company, geographical location, compliance history, and the history of the facility site location, processes and ownership. There should also be a brief description of the present operation.

Inspection Time/Date: The hour, day and year of the inspection/audit.

Name of Contact Person: Name, position or title and telephone

Opening Meeting: Who was present, and what were their titles or positions; what was discussed; were there specific arrangements? You should describe if entry was granted or denied, special conditions, problems or restrictions, amendment to the inspection/audit plan.

Field Inspection: This should be a narrative of the field inspection, events and observations. Where did you go? What did you do? What did you see?

Record Inspection: What records were reviewed? What records were copied and taken? Where the records kept and who was in charge of them? What selection method was used to review records?

Closing Meeting: Who was present? What was discussed? Did you request further information, from whom and by what date? Were there explanations to non-compliance(s)

Samples: What samples were taken, where, when, and for what? Attach copies of all supporting documentation and chain of- custody. Include a discussion of the time, method of packaging, transporting to, and receiving samples at the laboratory.

Compliance Concerns: Compliance concerns identified and which laws, guidelines and standards have been contravened/violated.

Attachments: List and identify all notes, documents, photographs, notices, and documentation. This may be done in the inspection/audit narrative itself or as attachments.

Date and Signature: It is your report, so sign it!

6.0 SUMMARY OF OBSERVATIONS AND NON-COMPLIANCES

7.0 RECOMMENDATIONS

OFFICERS **SIGNATURE/DATE**

NAME……..

NAME……..

NAME……..

NAME…….

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