NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

Reg. No. 200604393R

Ref: CINTRA/SOP/13.00	Date of issue: 02 July 2018	Next review date: 01 July 2021
Title:	CINTRA SOP on Internal Audit	
Audience:	All Staff in CINTRA	

1. Aim

Safety audit is essential elements of a safety management system at the workplace. CINTRA is required to systematically conduct audits to identify workplace hazards, review and examine processes and adopt necessary remedial actions to improve safety performance.

2. Scope

As CINTRA is categorised as SHARP Category 2 Group, the audit programme for high laboratories shall be thorough and frequent because of more significant hazardous activities as compared to the low risk workplaces. This SOP covers all workplaces in CINTRA.

3. Definition

Audit - Systematic examination to determine whether activities conform to planned arrangements and whether these arrangements are implemented effectively for achieving the University's as well as CINTRA's requirements. The three types of audits are described in section 6.1 below.

Auditees - refers to the laboratories or any specific persons that the auditor audited or interviewed as part of the audit process.

Auditor - refers to the person(s) carrying out the planned safety audit. The auditors may be external auditors, OHSE staff or any staff assigned by CINTRA.

Corrective Action refers to action(s) taken to eliminate the cause of a detected non-conformity.

Preventive Action refers to a proactive action(s) taken to prevent the occurrence or recurrence of a potential or detected non-conformity.

Person-in-Charge refers is the person (faculty or research staff) delegated by the Director CINTRA acting on behalf of CINTRA as occupier.

Minor Non-Conformity indicates presence of minor gaps (e.g. deviations from procedural requirements) which could lead to system breakdown. Findings in this

category also include legal non-compliance and/or potential serious incidents during site visit.

Major Non-Conformity indicates a significant systemic breakdown of an established process (e.g. failure to meet most of the stated requirements) and immediate attention is required to improve the situation.

Patch, for the purpose of this document, is corrective action for single occurrence of finding with concern. The auditee needs to address such finding quickly as these are localized issues.

Regular - for the purpose of this document, refers to predetermined or planned activity carried out within a fixed timeframe for example one inspection of a laboratory (unit) in every month. Users must separately determine such frequency explicitly to fit their schedule to meet the intent of the activity.

SHARP Cat 2 Group (Safety, Health and Risk Profile Category 2 Group) refers to Schools or Centres with laboratory-based activities (especially research) dealing with either biological, chemical, radiation, heavy machinery, etc.

4. Responsibilities

4.1 CINTRA Safety Committee shall:

4.1.1 plan and conduct audits (System, Technical and Compliance, see section 6.1 below) at regular intervals to ensure the CINTRA's Occupation Safety and Health Management System (OSHMS) is maintained and is in compliance to local legislation;

4.1.2 works on the outline and scope of audits and inspections schedule;

4.1.3 plan and communicate the audit framework with laboratories at least 2 weeks ahead of the audit date;

4.1.4 generate audit reports to the audited laboratories upon completion and follow up with the findings; and

4.1.5 keep records of all audit reports findings as part of document control.

4.2 CINTRA Safety Officer shall:

4.2.1 initiate an internal audit for the CINTRA where necessary;

4.2.2 raise issues of concern, where necessary, of a serious nature to CINTRA Director, PI or laboratory manager for resolution.

4.3 Principal Investigators and Person-in-Charge shall:

4.3.1 co-operate with internal audit teams; and

4.4.3 act on all observations from audits promptly.

5. Internal Audits

5.1 Types of Internal Audit

The audit can be:

5.1.1 OSHMS (Occupation Safety and Health Management System) Audit;

5.1.2 Technical Audits as part of an ongoing programme on specific topics or procedures such as emergency preparedness, risk management, safety inspection, contractor management; or

5.1.3 Specific Compliance Audit (for e.g. NEA N2 and N3 Licensing Requirements) to an agreed standard or requirement such that auditees are made aware of the safety obligations to ensure his/her safety at work.

5.2 Approach of Audits

The audit is to establish the effectiveness of the CINTRA's programme in 5 key areas as follows:

5.2.1 To ensure compliance and best Institute of Higher Learning (IHL) practice requirements;

5.2.2 To ensure program requirements have been met and if not, what are the deficiencies noted;

5.2.3 To ensure adequate resources have been committed to control workplace health and safety risks;

5.2.4 To ensure effective employee training have been conducted so as to achieve specific safe behaviours; and

5.2.5 To ensure the alignment of laboratories' safety programmes with the CINTRA's safety management system.

5.3 Audit Process

The audit should comprise of:

5.3.1 Documentation review;

5.3.2 Physical Inspections of activities and workplaces; and

5.3.3 Interviews with auditees who are either pre-selected or randomly selected.

However, the requirements may differ depending on the circumstances of each audit.

5.4 The Audit Framework

Before the audit, the auditors shall establish the audit framework through consultation between the auditors and auditees. The document should include the scope of the audit, criteria against performance of the audit, audit schedule and the documents that will be reviewed during the audit.

5.5 Grading

At the end of the audit, the audit will present the observations and irregularities to management; this should also highlight good observations and practices.

Findings are graded as follows:

Grade	Description	Actions[1]
Good	Observed practices are exemplary in the management and if possible, should be shared with other CINTRAs/departments.	None; May publish in website for other clusters to adopt where practicable.
Observations	Indicates reasonable implementation of the established process, but with suggestions to area for improvement.	Patch action to be done within 30 days.
Minor Non-Conformity	Indicates presence of minor gaps (e.g. deviations from procedural requirements) which could lead to system breakdown. Findings in this category also include legal non-compliance and/or potential serious incidents during site visit.	Corrective Action Plan: within 14 days from the date of report. Auditee needs to inform CINTRA Safety Committee when the non-compliance is resolved with evidence.
Major Non-Conformity	Indicates a significant systemic breakdown of an established process (e.g. fail to meet most of the stated requirements) and immediate attention is needed to improve the situation.	Corrective Action Plan within 14 days from the date of report. Re-audit of the system or specific parts of the system may be requested.

[1] All corrective actions are to be communicated to CINTRA Safety Committee as a written document detailing how the observations or non-compliance issues raised are addressed. This will include a specific timeframe where these corrective actions have to be done and person(s) responsible to implement the actions.

5.6 Safety Audit Action Plan

All safety audit action plans are to be communicated to CINTRA internal auditors as a written document detailing how the observations or non-conformity issues raised are addressed. This will include a specific timeframe where these corrective and preventive actions have to be done and person(s) responsible to implement the actions (refer to Appendix 1).

Any changes in the safety audit action plan shall be updated accordingly. Each update shall be reflected with the safety audit action plan revision number and date of acknowledgement by Person-in-Charge.

5.7 The Audit Checklist

The audit will be conducted with the aid of a set of customized checklist covering relevant aspects of the SS506 framework or areas of the activities of the laboratories being reviewed.

6. Report

The audit report will be submitted to the CINTRA management.

The audit report will include audit data and observations, scoring (section 5.5 above), overall assessment and areas for improvement.

If the observations of poor practices and conditions are widespread leading to a breakdown in the management system or where a practice indicates potential accidents/incidents, a non-conformity (NC) note will be issued against the laboratory to take immediate corrective actions.

7. Records

All records of audits shall be kept for a period of at least 5 years.

Appendix 1 –

Laboratory: _____ Safety Audit Action Plan Revision No.: _____

Safety Audit Action Plan						
Item No.	**Audit Finding**	**Corrective Actions**	**Action By**	**Target date of Completion**	**Status**	**Remarks, if any (attach document/ picture showing proof of completion)**

Prepared by Person-in-Charge: _____ Date: _____

Acknowledged by Principal Investigator: _____ Date: _____

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Version History

This Table below reflects the summary of changes made to the document. The full change information is indicated with yellow highlight in the document content.

Revision	Section	Details of Change	Author	Effective Date	Approved By
00	-	Initial Release	Dr Muhammad Danang	02 July 2018	Dr Dinh Xuan Quyen