NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

Reg. No. 200604393R

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Title :	CINTRA SOP on Performance Measurement & Monitoring	
Audience :	All Staff and Students in CINTRA	

1. AIM

This document is to establish procedures for monitoring and measuring occupational safety & health safety parameters in CNRS International-NTU-Thales Research Alliance (CINTRA).

2. SCOPE

This SOP is applicable to monitoring requirements applicable to the significant safety hazards, objectives and targets, and compliance. This SOP establishes a procedure to monitor and measure occupational safety performance, calibration of occupational safety monitoring equipment on a regular basis and ensure that the records of such calibration / maintenance are the up-to-date well documented.

3. DEFINITIONS

3.1 **Workplace**, as defined under the Workplace Safety and Health (WSH) Act, means any premises where a person is at work or is to work.

3.2 **CINTRA** – refers to the CNRS International-NTU-Thales Research Alliance.

3.3 **WRAS** refers to the Workplace Risk Assessment System which is a web-based tool to facilitate the conduct of risk assessment by NTU community.

3.4 **"shall"** – indicates a requirement;

3.5 **"should"** – indicates a recommendation;

3.6 **"may"** – indicates a permission;

3.7 **"can"** – indicates a possibility or a capability.

4. RESPONSIBILITIES

4.1 **CINTRA Safety Officer** shall

- Identify the parameters that need to be monitored, frequency and measurements using the Measurement and Monitoring Matrix (Section 7).
- Update table at least annually.
- Be responsible to communicate changes in the safety and health system that can affect the internal and external parties to ensure conformance to the latest requirements.

4.2 **Person-In-Charge (PIC)** shall

- Ensure that all practicable actions are taken to comply with the requirements.
- Monitor and ensure that measurements of these parameters are carried out accordingly.
- Report to the Safety Committee of any lapses.

5. Performance measurement and monitoring

5.1 The performance measures include, but not limited to the following:

a) **Set objectives and programmes**: regular monitoring of set objectives and programmes with follow up from various clusters *and* individual laboratories.

b) **CINTRA SOP Updates**: regular monitoring of CINTRA SOPs for review.

c) **Risk Assessment Status**: regular monitoring of RA for review and removal of expired Risk Assessment from the WRAS – NTU SOP on Risk Management.

d) **Safe Work Procedure Updates**: regular monitoring of SWPs for review.

e) Monitoring of statutory equipment, renewal of licences/permits.

f) Health surveillance which may include noise exposure, radiation exposure, etc.
   - CINTRA SOP on Handling of High Power Lasers
   - NTU SOP on Workplace Noise Management

g) Record of completion of safety training e-learning module and

scheduled training sessions or lessons as per CINTRA Safety Training Matrix in CINTRA SOP on Safety Training.

h) Incident statistics: provide number of incident, by type and severity

- NTU SOP on Incident/ Accident reporting and investigation

i) Results from safety inspections and audits (external or internal)
- CINTRA SOP on Internal Audit
- CINTRA SOP on Safety Inspection
- NTU SOP on Corrective and Preventive Actions Reports

j) Calibration of meters use for workplace monitoring purposes.
- Gas detection systems
- Fume Cupboards

5.2 All records of performance measurement and monitoring shall be documented.

5.3 Monitoring equipment used to measure OSH conditions (e.g., toxic gas detection equipment, sampling pumps, noise exposure, etc.) shall be maintained in good working condition and calibrated (where applicable) against measurement standards, traceable or international or national measurement standards. Such calibration status shall be clearly identified to the users.

6. PROCEDURES

a) Calibration Procedure

- In case of any in-house calibration, procedures for calibration of instruments shall be established.

- For all tests to be carried out by external agencies, the agencies shall be accredited. Otherwise, the external agencies shall provide copies of calibration certificates of the monitoring and measuring instruments.

b) Testing Procedure

- The testing procedure shall be conducted in accordance with the relevant standards/codes of practice/statutory requirements.

- In the case of testing by external agencies, the lab staff shall witness and verify results of the test, if practicable.

c) Non-conformance

- In case of deviations from statutory and other requirements, the lab staff shall immediately take corrective action and report to the PIC.
- The PIC shall monitor the progress in achieving objectives and targets and review them once in every six months.
- The PIC shall initiate the necessary preventive and corrective actions.

7. MEASUREMENT AND MONITORING MATRIX

Last Review Date: _____

Next Review Date: _____

S/No	Key Parameters / Activities	Frequency	Evidence	Person In Charge	Remarks
1	Objectives & Programmes	Bi-Monthly	Minutes of SC Meeting	Dr Dinh Xuan Quyen	At SSC meeting
2	CINTRA SOP Update	Yearly	Minutes of SC Meeting	Dr Dinh Xuan Quyen	At SSC meeting
3	Risk Assessments Status Update	Yearly	WRAS Report	Dr Liang Kun	At SSC meeting
4	Safe Work Procedure Update	Yearly	CINTRA SWP Register	Dr Muhammad Danang	At SSC meeting
5	Safety Inspection Report & C/PAR Status	Half Yearly	Safety Inspection Reports	Safety Committee members	At SSC meeting
6	Lab Users Safety Competency Records	Bi-Monthly	STMS & EEE Safety training records	Choo Hwee Pin	At SSC meeting
7	Radiation Equipment Licences	Quarterly	Radiation Equipment Master List	Dr Xia Nan	Submission to OHS
8	Laser Users (N3) Licences	Quarterly	Register of High Power Laser Users	Dr Xia Nan	Submission to SSC
9	Incident statistics	Yearly	Investigation Reports	Dr Dinh Xuan Quyen	At SSC meeting
10	Results from safety audits	Where necessary	Safety Audit Reports	Benny Chia	At SSC meeting

* The table should be reviewed at least once every 6 monthly and kept for audit purpose.

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	Document Author	Effective Date	Approved
00	N.A	Initial Release	Dr Muhammad Danang	07 Nov 2017	Dr Dinh Xuan Quyen
01	Whole	No Change to Content.	Dr Liang Kun	17 Dec 2020	Dr Dinh Xuan Quyen