

B04 Laboratory Safety Inspection Program

1. Introduction

To line with the Laboratory and Research Safety Policy, the Safety, Health and Environment (SHE) Office of HKSTP endeavors to promoting and maintaining a safe and healthy working environment in the laboratories at Science Park where cutting edge technologies and researches are employed. SHE Office conducts regular inspections to identify hazards, recommend remedial measures as well as safeguard personnel working in the laboratories. Self-inspection is also required to be conducted periodically by individual laboratories.

2. Scope and Applicability

This laboratory safety inspection program applies to all laboratories at Science Park, either operated by HKSTP or clients. It also applies to laboratory which may be operated by more than one client. In this situation, individual clients shall be responsible for overseeing the safety of their own laboratory facilities and working areas.

3. Responsibilities

Persons In-Charge of individual laboratories shall be responsible for taking care of the health and safety of their laboratories. They should cooperate with SHE Office in the arrangement of regular laboratory safety inspection. Persons In-Charge or their delegates should participate in the inspections and communicate closely with SHE Office in following up the remedial actions afterwards.

Persons In-Charge or their delegates are also required to carry out regular self-inspections at their laboratory areas.

4. Laboratory Self-Inspection

As the duty of managing laboratory safety rests with individual clients, Persons In-Charge or their delegates shall conduct periodic safety inspection at their laboratory areas using the Laboratory Self-Inspection Checklist provided by HKSTP. Completed checklists with records of following up actions shall be kept for at least one year for future checking during the inspection or audit arranged by SHE Office of HKSTP.

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5. Frequency of Inspection

The required frequency of inspection arranged by SHE Office and self-inspection to be conducted by individual clients are delineated in the following table:

	Frequency of Inspection (per year)		
	Category 1 Labs	Category 2 Labs	Category 3 Labs
Inspection by SHE Office	≥ 1	≥ 1	≥ 2
Self-inspection	≥ 1	≥ 2	≥ 2

The frequency depends on risk category of individual laboratories. Category 1, 2 and 3 represent laboratories of low, medium and high risk levels respectively*. The inspection arranged by SHE Office is at least once every year for low to medium risk laboratories; and twice for high risk laboratories. As for self-inspection to be conducted by individual clients, the frequency is at least once every year for low risk laboratories and twice for medium to high risk laboratories. These frequencies will be subject to change depending on the associated risk level and safety performance of individual laboratories.

* *Note: please refer to Annex 1 for details about the categorization of laboratories.*

6. Inspection Report and Remedial Actions

After each inspection conducted by SHE Office, an inspection report will be issued to the corresponding Person In-Charge within 14 working days. Each identified laboratory safety issue will be rated as I, II or III according to the action levels. Required remedial actions shall be completed within the time period prescribed for each action level as described in the table below. The report, with the remedial actions recorded, shall be returned to SHE Office for information and following up actions or verification if necessary.

Action Level	Required Remedial Action and Time Line
I	Recommended good practice / required maintenance work to follow the planned schedule
II	Remedial action required within 4 weeks
III	Immediate remedial action required

The concerned Person In-Charge shall also return the report with records of completed remedial actions to SHE Office within the prescribed period for reference and following up whenever necessary.

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7. Overall Laboratory Safety Performance

According to the findings from the inspection, the overall laboratory safety performance of the corresponding client will be stated in the report issued by SHE Office. This would be either “**good**”, “**fair**” or “**unsatisfactory**” subject to the number of safety issues and their action levels.

As the inspection report associated with unsatisfactory performance reveals a great number of laboratory safety issues or issues of imminent dangers to laboratory personnel, Director of SHE has the right to issue a suspension notice to the concerned client. Laboratory operation shall not be resumed until remedial action has been followed through to the satisfaction of the Director of SHE.

HKSTP also has the right to terminate the tenancy for a client’s laboratory space in case the client violates local legislation or breaches the leasing requirements with respect to laboratory safety.

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Annex 1. Risk Categorization of Laboratories at the Science Park

Laboratories at the Science Park are currently classified into three risk categories, i.e. Category 1 (Low Risk), Category 2 (Medium Risk) and Category 3 (High Risk). The criteria for classification is based on a simple 3x3 risk heat map as described below.

		Likelihood		
		Unlikely	Possible	Likely
Impact	Significant	Medium (Cat 2)	High (Cat 3)	High (Cat 3)
	Moderate	Low (Cat 1)	Medium (Cat 2)	High (Cat 3)
	Minor	Low (Cat 1)	Low (Cat 1)	Medium (Cat 2)

The factors associated with “Impact” and “Likelihood” in the risk heat map for laboratory categorization are described in the following table.

Impact		Likelihood	
Minor:	<ul style="list-style-type: none"> Only common chemicals of limited quantities are handled or kept in the lab No other hazardous substances are involved in the lab operations 	Unlikely:	<ul style="list-style-type: none"> Applicable lab safety control measures are in place Good performance with respect to lab safety has been recorded
Moderate:	<ul style="list-style-type: none"> Considerable quantity of hazardous chemicals are handled or kept in the lab Risk group 1 microorganisms are handled in the lab Closed beam X-ray equipment or sealed radioactive substances are used Class 3B lasers are used Other lab operations of moderate hazardous nature are involved 	Possible:	<ul style="list-style-type: none"> Applicable lab safety control measures are in place but not strictly followed or implemented Fair performance with respect to lab safety has been recorded Minor lab incident or accident has been recorded
Significant:	<ul style="list-style-type: none"> Highly hazardous chemicals are handled or kept in the lab Risk group 2 microorganisms or clinical specimens are handled in the lab Open beam X-ray equipment or unsealed radioactive substances are used Class 4 lasers are used NMR or MRI are used Other high risk operations are involved 	Likely:	<ul style="list-style-type: none"> Not sufficient lab safety control measures Applicable lab safety control measures not implemented or followed through Unsatisfactory performance with respect to lab safety has been recorded Major lab incident or accident has been recorded