General Risk Assessment Form

The purpose of any risk assessment is to identify the **significant hazards** that may be associated with particular activities, and ensure that the risks associated with these hazards are either **eliminated or reduced to an acceptable level** for **all individuals** who might be affected. If necessary, refer to guidance on the risk assessment process to help complete this form. The nature and complexity of the risk assessment will vary with the type of activity and therefore should be commensurate with the actual risk that the identified hazards pose in the particular circumstances.

It is essential that those associated with the activity are given appropriate **information, instruction and training** to ensure all work activities are conducted as safely as possible.

Activity Title:	Exploring Magnetic Fields in Inertial Fusion Plasmas	
Location of Work: University of York: York Plasma Institute	**Date of Assessment:** 16/02/2026 - 14/09/2026	**Review Date:** Assessment should be reviewed annually or after a significant change to the work activity

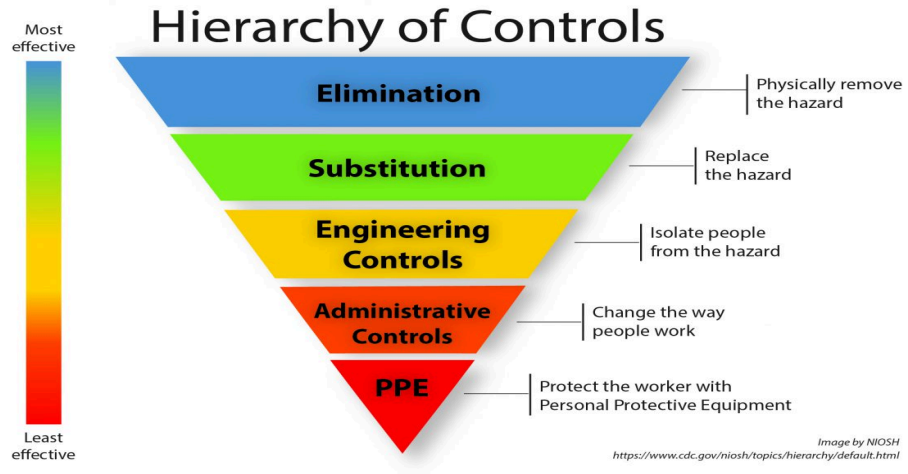
Description of Work Activity / Task:

Computational based project involving simulating an inertial plasma experiment to measure the magnetothermal instability, such as from simulated proton radiography measurements, from spontaneously generated magnetic fields due to laser-plasma interactions.

Persons Affected?: Consider all staff groups, students, visitors, cleaners, DTEF maintenance, researchers, technical and professional support services.	**Vulnerable Persons?:** Consider those at greater risk e.g. pregnant / breast feeding women or those with disabilities / health problems.
Ciara Malcolm De Martin (myself), Dr. Sam O'Neill (project supervisor), Prof Chris Ridgers and Prof Nigel Woolsey (secondary supervisors), any other members of staff whose data I may be using (will update as required).	N/A.

Name of Assessor:	**Assessment Agreed By:** Person responsible for the activity i.e. line Manager / Group Leader
Ciara Malcolm De Martin	Dr. Sam O'Neill

Risk Mitigation:



Apply the hierarchy of control in order (starting from the top).

You may not be able to apply all of the hierarchy in all situations but try to avoid going straight to Personal Protective Equipment (PPE).

Risk Matrix:

Score	Severity / Consequence if Harm Occurs (defined by the nature of the hazard)	Likelihood of Harm Occurring (considers existing controls in place)
1	Minor: slight / negligible injury or illness requiring first aid treatment only	Low: harm is unlikely to occur (once / 5 years) because appropriate controls are in place
2	Serious: >7 day injury or illness (as defined by RIDDOR)	Medium: harm will probably occur (once / annum) because controls are incomplete
3	Major: can cause death, permanent disability or life threatening disease	High: harm is certain / near certain to occur (once or more / month) because of inadequate controls

Likelihood / Severity	1	2	3
1	Low	Low	Medium
2	Low	Medium	High
3	Medium	High	High

Risk Rating	Description (Action & Timescale)
Low	Adequately controlled or minor residual risk. No additional controls required. Monitoring is required to ensure that the controls are maintained.
Medium	Minor residual risk / not adequately controlled. Consider need for improved control measures to reduce risks as low as reasonably practicable. Additional controls to be implemented within a defined time period.
High	Not adequately controlled- do not start / or continue with the activity. Measures urgently needed to reduce level of risk as low as reasonably practicable. Significant resources may be needed to reduce risk.

Risk Assessment

Ref	**Significant Hazards?** (sources of potential harm- see Appendix 1 for examples)	**a) Who might be harmed and how might this occur, b) What is the harmful effect of hazard?** (consider all stages of the work activity)	**Existing Control Measures to Prevent or Minimise Risk** Identify key control measures, proportionate to level of risk (i.e. likelihood + seriousness of harm occurring), needed to reduce risks to a low & acceptable level	**L** (1-3)	**S** (1-3)	**Residual Risk Level (L/M/H)**	**Further Action Necessary? Y/N** (if Y, detail in the Action Plan below)
1	Extended computer use	a) Staff and students, from staying in the same posture for a while and without suitably ergonomic equipment, and looking at a bright screen for too long. b) Muscle pain and discomfort, eye strain.	• DSE training and use of ergonomic equipment such as office chairs with back support, computer stands, keyboard and mouse. • Taking frequent breaks to move and be away from a screen. • Lowering screen brightness or using night light filters.	2	1	Low	No
2	Electricity	a) Staff and students, faulty/damaged electrical equipment. b) Electrical shocks or fires.	• All electrical equipment is checked and has passed Electrical Equipment Testing.	1	2	Low	No
3	Stress	a) Staff and students, from overwork or constant exposure to deadlines and work pressures. b) Poor mental health.	• University mental health services. • Taking frequent breaks from work and having days off.	2	1	Low	No

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4	Repetitive actions	a) Staff and students, from repetitive actions such as typing on a keyboard or using a mouse. b) RSI or carpal tunnel.	• Using ergonomic equipment such as a laptop stand and separate keyboard. • Taking breaks to move around.	1	1	Low	No
5	Fire	a) Staff and students, electrical equipment malfunctioning or other sources of fire such as candles. b) Burns, smoke inhalation, death.	• Electrical equipment is checked regularly and has passed Electrical Equipment Testing. • Candles, matches etc. are not allowed in the building. • Separate fire risk assessment taken for building. • Fire escapes present and clearly labelled, and fire alarms present and a fire emergency plan.	1	3	Me…	No
6	Lone working	a) Staff and students, being in the building alone. b) If anything happens there is nobody else in the building who can help.	• Campus security number for contact, and telephone to contact them in the building. • Check in board to see who is in the building.	1	1	Low	No

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			• Building is alarmed.				

Action Plan:

Ref No.	Further Action Required to Control Risk	Action by Whom?	Action By When?	Done?

Communication of Risk Assessment / Information, Instruction & Training:

All workers directly involved in the work activity must be informed of the significant findings of this risk assessment and instructed / trained on how to perform the activity safely. This includes:

A. information / instruction on safe use of equipment & any required personal protective equipment.
B. Training on any specific Standard Operating Procedures associated with the work activity.

I have read and understood the contents of this risk assessment / have received necessary information, instruction & training to perform the task safely:

Name	Date	Signature
Ciara Malcolm De Martin	19/02/2026	CIARA MALCOLM DE MARTIN

Appendix 1: HAZARD SPOTTING CHECKLIST - Some example hazards that may apply to the activity (not exhaustive)

	Physical	Chemical/Biological	Ergonomic	Check Controls
People 	• Manual handling	• Personal protective equipment	• Restricted posture	• Training records
	• Working at height	◦ In use?	• Computer use	• Risk assessments
	• Falling objects	◦ Correct?	• Stooping	• Method statements
	• Electricity	◦ Does it fit?	• Twisting	• Personal Protective Equipment
	• Noise	• Fume cupboards in use?	• Bending	• Mechanical handling aids
		• Ventilation	• Repetitive work	
Equipment 	• Impact	• Waste products	• Does equipment force user into restricted posture?	• Suitable for use?
	• Entanglement	• Fumes		• Used properly
	• Trip hazards	• Exhaust	• Repetitive actions	• Maintained?
	• Entrapment	• Associated substances (oil, toner, etc.)	• Small movements	• Guards present and used?
	• Heavy			
	• Crush			
	• Damaged?			
Materials 	• Any materials used that might create slip hazard?	• Hazardous substances?	• Restricted posture	• COSHH Risk Assessments
		◦ Corrosive	• Repetitive actions	• Fume cupboards
	• Flammable?	◦ Irritant	• Substance dictates work task	• Personal protective equipment
	• Asphyxiant?	◦ Harmful	• Materials handling	• Training
		◦ Toxic		• Correct waste disposal
		• Infectious materials		
		• Waste materials		
Environment 	• General housekeeping	• Work in area where chemicals are used?	• Confined space	• Clear signage
	• Fire detection equipment		• Restricted space	• Risk assessments
	• Fire routes and doors	• Work in area where might be biohazard	• Work layout	• Fire sweepers
	• Lighting levels			• Awareness of emergency procedures
	• Ventilation	◦ Bins		
	• Damage to structure	◦ Public space		
		◦ Near water		
		• Needlestick injuries		

Please note: This is not an exhaustive checklist, but should be used as a prompt when carrying out workplace inspections and/ or risk assessments to consider all possible hazards presented by a task, location or project.