ESS RULES FOR RISK ASSESSMENT METHOD STATEMENT (RAMS)

	Name	Role/Title
Owner	Dennis de Wit	Occupational Health and Safety Technician
Reviewer	Felicia Dobos	Occupational Health and Safety Engineer
Approver	Helen Boyer	Occupational Health and Safety Group Leader

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COVER SHEET SECTION

Provide the name, contractor company, and title of those who prepared and reviewed/approved this form in the signature box provided. The Area Co-Ordinator and OHS Engineer must review and approve the RAMS before the job may proceed. Any comments must be captured in this document.

Contractor Supervisor to Complete this Section:

ESS Division:
Contractor:

Job Description:
Work Order No:

Prepared By: **Email:**

Date Submitted (dd/mm/yy):

INSTALLATION REVIEW

Owner: Installation Package Leader:	**Date:**
Owner: Test Package Leader:	**Date:**
Reviewer: OHS Engineer:	**Date:**
Reviewer: Electrical Safety Leader:	**Date:**
Approver: Area Co-Ordinator:	**Date:**

Reviewer's Comments

#	Comments	Initials

SIGN ON RECORD

All persons expected to work on the installation detailed within, shall sign the table below to confirm they have read and understood this RAMS including appendix information.

Name	Position	Signed	Date

How will information be communicated and explained to work force

	Y/N	
RAMS Communicated		
Pre-Job Briefings		

2.
METHOD STATEMENT

In-Kind Contributor/Contractor to enter information about equipment and materials to be used for the specific job.

2.1. Description of Task/Process:

If the work is part of an Installation Binder, then align with Chapter 01 in that binder and detail:

If the work is not part of an Installation Binder, then describe below:

2.2. Sequence of work

(step by step) and the duration of each (align with Installation Binder):

Link to Chapter 3 of the Installation binder if used.

Sequence	Duration [hours or days]

2.3. Temporary services

If temporary services are required i.e. scaffold, site logistics etc. detail below:

Link to Chapter 5 of the Installation binder if used

2.4. Training

Who will carry out the works and detail training i.e Lifting & Slinging /Forklift / Harness / Working at Height etc.

Link to Chapter 8 of the Installation binder if used

Operative Name	Training Required (e.g. Hot Work)	Training Received (Y/N)

2.6. Personnel protective equipment

*Mandatory PPE

Personnel Protective Equipment required Yes/No:			
Safety Helmet*		Harness and Lanyard	
Safety Boots*		Dust Mask	
High Visibility Vest*		Welding Mask	
Gloves (TYPE-suited to task) *		Hearing Protection	
Safety Glasses*		Personal Oxygen Deficiency monitor	
Goggles / Face-Shield		Personal dosimeter	

2.7. Permits, Rescue plans and Authorizations

Indicate below what additional specific permits, rescue plans and/or authorizations will be required for this RAMS:

This only indicates what is needed and will have to be requested/applied separately, highlight with Y/N. Link to Chapter 8 of the Installation binder if used

Permit	Required	Permit	Required
Hot Works Permit		Electrical Works	
Confined Space Work Permit		Electrical Lock out/Tag Out	
Out of Hours Permit (if necessary)		Energisation Request	
Radiological Permit			
Roof access Permit			
Ladder Permit			

Rescue plans	Required	Authorizations	Required
Work with Safety Harness Rescue Plan		Authorization for the use of: MEWP, Forklift, Crane	
Rescue plan confined spaces			

If Electrical work and/or LOTO is required, please complete Permit request in EAM Work Order system and please consider electrical hazards in the risk assessment in section 2.

2.8. Adjacent Areas

Protection system for third party incl. public, adjacent workers etc.: (Fencing off areas, noise, flash from welding etc.)

Operative	Adjacent Areas

2.9. Temporary amendments

If Temporary amendments to escape routes, fire alarm, client rules etc. are required then detail below:

2.10. Equipment and Tools

Description of Equipment and Tools

(If additional Hardware/Machinery is being brought to site)

Plant/MEWP/Scissor Lifts	Certification received

2.11. Emergency procedures

incl. first aid arrangements:

Procedure	Institution/Authority	Reviewed?
	ESS Emergency Notice	

Contact person when working with MEWP			
Name:		Telephone number:	

First Aid Training including CPR	Institution/Authority	Training Received

ESS strongly advises to have at least one person per working group trained in First Aid and CPR. This training becomes mandatory when working outside normal working hours.

2.13. Chemical & Substances – Safety Data Sheet (SDS):

These may be described as cleaners, paints, solvents, lubricants, gases, aerosols of any kind, greases, cement and its additives and supplementary Control of Substances Hazardous to Health Assessment may be required.

Product Name	Used For	Form: Liquid/Gas/Solid	Container Size	SDS Attached Yes / No

2.14. Special Waste and Hazardous waste

How will the any residue from products listed under 2.13 be disposed?

All waste that might need special container, treatment or is considered hazardous, needs to be deal with in a proper way according to ESS licencing permits, rules and agreements.

Type of Waste	Quantity and place to be picked up or released

2.15. Release to the sewage system

As per ESS' Environmental permit, any liquid, considered clean, contaminated, or as a result of an emergency or incident, that needs to get rid of, requires a special permit before release to the municipalities system or ponds is allowed.

Is there a requirement to release any liquid to the sewage system? ☐ Yes* ☐ No

*Contact: ohs@ess.eu

Type of liquid	Quantity and location of release

RISK ASSESSMENT

(Please use the Appendix for references to each column)

A							Initial rating				Residual rating		
Ref. no	Location	Area	What is the Task or Activity?	What is the Hazard?	What is the possible Consequence?	Who is affected?	S	L	Risk H, M, L	Mitigations to control risk	S	L	Risk H, M , L
1													
2													
3													
4													
5													
6													

A							Initial rating				Residual rating		
Ref. no	Location	Area	What is the Task or Activity?	What is the Hazard?	What is the possible Consequence?	Who is affected?	S	L	Risk H, M, L, A	Mitigations to control risk	S	L	Risk H, M , L, A
7													
8													
9													
10													
11													
12													
13													
14													

A							Initial rating				Residual rating		
Ref. no	Location	Area	What is the Task or Activity?	What is the Hazard?	What is the possible Consequence?	Who is affected?	S	L	Risk H, M, L, A	Mitigations to control risk	S	L	Risk H, M , L, A
15													
16													
178													
18													
19													
20													
21													
22													

APPENDIX

Risk Assessment guidance

1.1 Define Scope and limitations

1.2 Describe the location for activity or task by stating the building name or number and area if applicable

1.3 Break the activities down into steps - Clearly and precise

1.4 Determine the hazards associated in column **What is the hazard**? Can be input from the Hazard identification checklist ESS-1713369 [1] or similar.

1.5 Next step is to state the possible consequence the Hazard could cause in column **What is the possible Consequence?** (What potential harm e.g. injury, fire, occupational health disease can the hazard cause)

1.6 Carry out the **Initial risk rating** of the hazard according to 1.6.1, 1.6.2 and 1.6.3

1.6.1 Considering the hazards involved without any controlling measures, determine the worst credible severity of an incident by using **Risk Matrix** 5x5. Write the severity number in column **S** (Severity).

1.6.2 Considering the hazards involved without any controlling measures being in place, determine the likelihood that an incident will result from this job step by using the **Risk Matrix** 5x5. Write the likelihood number in column **L** (Likelihood)

1.6.3 Colour occurs in column Risk in the corresponding table colours for Low, Medium and High to highlight the level and make it simple to see and understand.

1.7 Repeat steps 1.4-1.6 for each of the activities identified.

1.8 List any control measures that will be taken to ensure that step is done safely in column **Mitigations to control risk**. Use the Table **Risk reduction strategy with control measure examples** [2] down below provided to help your evaluation about different types of controls and their effectiveness at reducing risk. The Severity of an accident usually remains the same. It is only the likelihood score that will change following controls.

1.9 Once all controls are described follow the same process in 1.4-1.6 to complete the severity, likelihood and residual risk that potentially remains after mitigation- Residual risk

Risk reduction strategy with control measure examples

	Control	Examples
Least Effective	**PPE**	√ Safety glasses √ Hearing protection √ Hardhat √ Gloves
	Administrative	√ Work rotation to minimize exposure √ Inspect safety equipment √ Good housekeeping practices √ Training and supervision
	Warning	√ Signs √ Backup alarms √ Horns √ Beepers
	Engineering/Isolation	√ Ventilation √ Machine guarding √ Enclosures √ Circuit breakers
	Substitution	√ Use latex rather than oil-based paints √ Reduce energy, such as speed, force, amperage, pressure, and temperature √ Use water-based detergents instead of organic solvents
Most Effective	**Elimination**	√ Remove a dangerous machine from service √ Remove the hazard altogether

Risk Matrix

This risk matrix is suitable for assessment of conventional hazards occurring during task based activities at ESS. A consequence/likelihood matrix is used to assess the relative magnitude

		Severity (S)				
		1	2	3	4	5
Likelihood (L)	1	A	A	L	M	M
	2	A	A	L	M	H
	3	A	L	M	H	H
	4	L	M	M	H	H
	5	M	M	H	H	H

Severity categories (S)	
Score	**Description**
1	**No injury**
2	**Minor** -Injuries that can be treated with a first aid kit
3	**Major** -Injuries requiring the support of emergency services or a reportable injury
4	**Single fatality**
5	**Multiple fatalities**
Likelihood categories (L)	
Score	**Description**
1	**Highly improbable**- Would not be expected to occur
2	**Unlikely**
3	**Remote**
4	**Occasional**
5	**Frequent**-Expected to happen

Risk categories	Action required
Acceptable(A)	If the risk is considered low and provided the correct processes are followed no further control measures are considered necessary. Work can proceed
Low (L) Risk (Green)	If the risk is considered low and provided the correct processes are followed further control measures should be considered if low or minimal cost. Work can proceed
Medium (M) Risk (Orange) Mitigation needed	If risk is considered medium and further control measures will be in place to reduce the risk. After the control measures are put in place, the risk will be re-assessed to determine the impact of the risk with the control measures in place. Work could proceed upon further evaluation.
High (H) Risk (Red) Unacceptabe	If the risk is considered high, no work will take place until control measures are in place to reduce the risk. After mitigations are considered, if the residual risk remains high, work will not commence, alternative solution need to be considered.

REFERENCES

[1] Hazard Identification (Hazid) checklist (ESS-1713369)
[2] Task Risk Assessment (TRA) (ESS-1549899)

GLOSSARY

Term	Definition
RAMS	Risk Assessment and Method Statement
ESS	European Spallation Source ERIC
OSH	Occupational Health and Safety
ESH	Environment Safety and Health
PPE	Personal Protective Equipment
MEWP	Mobile Elevated Platform
LOTO	Lock out / Tag out
EAM	Enterprise Asset Management system
CPR	Cardiopulmonary Resuscitation
SDS	Safety Data Sheet

DOCUMENT REVISION HISTORY

Revision	Reason for and description of change	Author	Date
1	First issue	Dennis de Wit	2020-02-21
2	Addition in section 1.7: Rescue plans and authorizations; Replaced risk matrix with revised version Addition of contact person when working with MEWP, section 1.11	Dennis de Wit	2020-08-21
3	Addition of sign off sheet and additional PPE	Dennis de Wit	2020-11-16
4	Addition of glossary and updated emergency notice	Dennis de Wit	2021-04-06