NC Job Risk Assessment

Name(s) of Risk Team Members: L. Davis, D. Elling, R. Sabatini	**Point Value → Parameter ↓**	**1**	**2**	**3**	**4**	**5**
Job Title: Magnetic fields and non-ionizing radiation work **Job Number or Job Identifier: NC-JRA-012**						
Job Description: Work with magnetic fields and non-ionizing radiation.	**Frequency (B)**	**≤once/year**	**≤once/month**	**≤once/week**	**≤once/shift**	**>once/shift**
Training Procedures List (Optional):	**Severity (C)**	**First Aid Only**	**Medical Treatment**	**Lost Time**	**Partial Disability**	**Death or Permanent Disability**
Approved by: R. Sabatini Date:5/16/2011 Rev. #: 1	**Likelihood (D)**	**Very Unlikely**	**Unlikely**	**Possible**	**Probable**	**Multiple**

			Before Additional Controls							After Additional Controls						
Job Step / Task	**Hazard**	**Control(s)**	**Stressor**	**# of People A**	**Frequency B**	**Severity C**	**Likelihood D**	**Risk* AxBxCxD**	**Control(s) Added to Reduce Risk**	**Stressors**	**# of People A**	**Frequency B**	**Severity C**	**Likelihood D**	**Risk* AxBxCxD**	**% Risk Reduction**
Operating Power Supplies	Electric Shock	Proper installation, grounding, training procedures, work planning, PPE, Tier 1, SBMS Electrical Safety SUBJECT AREA, protection circuitry.	N	1	5	2	2	20								
	Arc Flash	Proper installation, grounding, training procedures, work planning, PPE, Tier 1, SBMS Electrical Safety SUBJECT AREA, protection circuitry, EEI Inspections	N	1	5	3	2	30								

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Operating Power Supplies (Cont'd)	Reflex injury	Grounding, training, procedures, work planning, PPE, Tier 1, work area conditions	N	1	5	1	2	10								
Working with magnetic fields	Being struck by an object pulled into the field	Work planning, IH review, static magnetic fields SBMS subject area, procedures, training, work area conditions, non-magnetic tools, field maps, field on indicators.	N	1	3	3	2	18								
	Electrical surge due to quench of magnet	Operation within rated limits, power supply design, use of UPS and persistent circuits, ODH assessment and training.	N	1	3	1	2	6								
	Oxygen deficiency due to massive boil-off during a quench	Work planning, ODH assessment and training, SBMS subject area	N	1	3	4	2	30								
	Cryogenic work	See NC-JRA-005	N	1	4	2	1	8								

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Working with RF devices	Electrical shock	Proper installation, grounding, training procedures, work planning, PPE, Tier 1	N	1	2	2	1	4								
	Reflex injury	Grounding, training, procedures, work planning, PPE, Tier 1, work area conditions	N	1	2	1	1	2								
	x-ray exposure	Work planning, IH review, static magnetic fields SBMS subject area, procedures, training, work area conditions, non-magnetic tools, field on indicators.	N	1	4	2	1	8								
	Thermal injury from microwave exposure	Work planning, IH review, static magnetic fields SBMS subject area, procedures, training, work area conditions, non-magnetic tools, field maps, field on indicators.	N	1	4	1	1	4								
Working with RF devices	Vacuum system work	See NC-JRA- 019	N	1	4	1	1	4								

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*Risk:	0 to 20	21 to 40	41-60	61 to 80	81 or greater
	Negligible	Acceptable	Moderate	Substantial	Intolerable