

Job Risk Assessment

Name(s) of Risk Team Members: P. Cirnigliaro, M. Sivertz			Point Value → Parameter ↓	1	2	3	4	5								
Job Title: Biological Material Work			Frequency (B)	≤once/year	≤once/month	≤once/week	≤once/shift	>once/shift								
Job Number or Job Identifier: JRA 11-08																
Job Description: Cell Work at NSRL			Severity (C)	First Aid Only	Medical Treatment	Lost Time	Partial Disability	Death or Permanent Disability								
Training Procedures List (Optional):			Likelihood (D)	Very Unlikely	Unlikely	Possible	Probable	Multiple								
Approved by: E. Lessard Date: 5-9-08 Rev. #: 0																
Stressors (if applicable, please list all)				Reason for Revision (if applicable):				Comments:								
			Before Additional Controls					After Additional Controls								
Activity	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
Transport by vehicle cell samples to and from Medical/Biology Dept. to NSRL	Highway accident	Training and compliance with BNL's traffic safety rules, BNL onsite Transfer/Safety Assessment.	N	1	4	3	3	36								

Job Risk Assessment

Remove biological materials from transport vehicle.	Falls on same level	Proper footwear, housekeeping.	N	1	4	3	2	24									
Remove biological materials from transport vehicle.	Exposure to biological materials due to damaging sample containers.	Use of secondary containment, plastic sample holders, and cushioned trays.	N	1	4	1	2	8									
Store biological material in incubators	Use of compressed CO ₂ bottles.	Compressed gas awareness training in C-A Radiobiology training, gas cylinder handling by C-AD staff.	N	1	4	3	2	24									
Prepare biological materials for exposure.	Chemical exposure	Work Planning, Experiment Safety Reviews, use of local ventilation, use of PPE.	N	1	5	1	2	10									
Prepare biological materials for exposure.	Exposure to biological materials.	Work Planning, Experiment Safety Reviews, use of local ventilation, use of PPE.	N	1	5	1	2	10									
Transport biological materials from cell lab to NSRL target room	Ionizing radiation exposure	Work planning, Access Control System.	N	1	5	1	2	10									

Job Risk Assessment

Remove biological materials from target room to cell lab.	Ionizing radiation exposure from activation products	Work planning, Access Control System, Appropriate exposure controls by Liaison Physicist. Radiation survey by Health Physics Technician.	N	1	5	1	2	10								
Manipulation of biological materials after radiation exposure.	Ionizing radiation exposure from activation products	Allow for decay before manipulation of materials, work planning, training, RWP.	N	2	5	1	2	20								
Manipulation of biological materials after radiation exposure.	Chemical exposure	Use of PPE, use of local ventilation, work planning, RWP.	N	2	5	1	2	20								
Manipulation of biological materials after radiation exposure.	Exposure to biological materials.	Use of PPE, use of local ventilation, allow for decay before manipulation of materials, work planning including biological hazard controls and emergency spill procedures, RWP.	N	2	5	1	2	20								
*Risk:	0 to 20	21 to 40	41-60			61 to 80		81 or greater								
	Negligible	Acceptable	Moderate			Substantial		Intolerable								