EXAMPLE NATIONAL CANCER INSTITUTE AT FREDERICK RADIATION PROGRAM RENEWAL APPLICATION

All Principal Investigators are required to renew their Radiation Programs on a periodic basis. In an attempt to facilitate the program's renewal effort, the Radiation Safety Office will compile and supply pertinent information regarding each Radiological Program to all approved Radiation Program Principal Investigators.

Each Principal Investigator shall review the provided information and make any appropriate changes on the application form. After these changes have been made, please send a dated and signed hard copy of the application form to the Radiation Safety Office. In addition, the signature sheet from the Protocol Specific Training Document (PST) and a copy of your current radiation protocols must be submitted.

The Renewal Application form, the signature sheet from the PST, and a copy of your current protocols will constitute the program's Radiation Program Renewal Application.

If any assistance is needed in this matter, please contact the Radiation Safety Office at extensions 1902 or 5730.

Project: Cancer Research Program

Radiation Program Number: 99-15

Principal Investigator: Dr. John Smith

Radiation Area Supervisor: Jane Doe

Date of Radiation Program Renewal: 5-11-04

Complete the following table for each person on the program. ONLY INCLUDE CURRENT PERSONNEL, NEW INDIVIDUALS MUST BE ADDED TO THE PROGRAM SEPARATELY.

Radiation Program Personnel									
Name	Remove from Program Y/N	Authorized Isotopes	Maximum Activity to be used per/exp. (in mCi)						
John Smith	N	H-3 / P-32	10.0 / 20.0						
Jane Doe	N	P-32	1.0						
Joe Black	Y								

TRAINING AND EXPERIENCE: List all experience with isotope use and any new relative training for each individual listed above. FAILURE TO PROVIDE EXPERIENCE MAY RESULT IN INDIVIDUALS BEING SUPERVISED FOR SIX MONTHS.

NAME:John Smith_					
FORMAL TRAINING	CLASSES:				
TITLE:	WH	EN:		WHERE:	
Metabolic Labeling	101 Janua	ry 2004	Frederick State University		
_					
	. Tida				
PREVIOUS ISOTOPE	E USE:				
WHERE:	HOW LONG:	ISOTOPI	E:	ACTIVITY:	
NIH	10 years	C-14 / H-3 / P-32		10.0 mCi each	
NCI-F	5 years	C-14		5.0 mCi	
		H-3		10.0 mCi	
		S-35		5.0 mCi	
		P-32		30.0 mCi	
SIGNATURE:		DATE:			
	John Smith				

TRAINING AND EXPERIENCE: List all experience with isotope use and any new relative training for each individual listed above. FAILURE TO PROVIDE EXPERIENCE MAY RESULT IN INDIVIDUALS BEING SUPERVISED FOR SIX MONTHS.

TITLE:	WHEN	\:	WHERE:
None			
EVIOUS ISOTO	PE USE:		
WHERE:	HOW LONG:	ISOTOPE:	ACTIVITY
NCI-F	5 years	P-32	1.0 mCi

Protocol and Isotope Authorizations

In the following tables, list protocols used within your radiation program. Requested radioisotopes and authorized limits for program inventory as well as the maximum use per experiment should be included. In addition to listing protocols, please attach a copy of <u>all radiation protocols</u> to your renewal documents.

PROTOCOLS								
Name of Protocol	Isotope used	Maximum Activity per Experiment (mCi)						
Proliferation Assay	H-3	1.0						
Metabolic Labeling	P-32	10.0						
Southern Hybridization	P-32	1.0						

Inventory of Isotopes

Maximum Activity (mCi) for Each Isotope to Be Kept in Lab at Any One Time						
Isotope	Amount (mCi)					
H-3	30.0					
P-32	20.0					

Training / Protocol Specific Training

In accordance with NRC/NCI-Frederick regulations, all authorized users of radioactive materials are mandated to complete all training courses provided by the Radiation Safety Office.

In addition to completion of the required courses, it is the responsibility of the Principal Investigator and/or Radiation Area Supervisor to oversee and document the training of specific laboratory procedures for laboratory personnel. Protocol-specific training will be accomplished by using the Protocol Specific Training Document supplied to the radiation program by the Radiation Safety Office and thereafter, maintained by the program.

Authorized Radiation Areas

Building	Room
426	132
426	140

Waste Storage and Handling Methods

Solid radioactive waste will be stored in an appropriate dry radioactive waste container and appropriately shielded in room $\underline{140}$.

Liquid waste will be stored in an appropriate liquid radioactive waster container and appropriately shielded in room <u>140</u>.

High activity, low volume waste will be disposed of according to Radiation Safety instructions. Waste will be disposed in accordance with NCI-Frederick protocols.

Radiation Monitoring Equipment

Beta and gamma survey meters are available for use during isotope manipulations and for mandatory contamination surveys. All personnel will have access to a liquid scintillation counter to quantify surface contamination. All procedures will be performed to keep exposure As Low As Reasonably Achievable (**ALARA**). Adequate shielding will be provided and used as necessary. Additionally, eye protection, remote handling devices and protective clothing will be used when appropriate.

Please provide the Radiation Safety Office with a current and accurate list of meters (e.g., Geiger Counter), liquid scintillation counters, and/or gamma counters used for monitoring within your laboratory. Include the model number, serial number and NIH number (when possible).

MONITORING EQUIPMENT							
Model	Serial #	NIH#					
Ludlum Model 3	112473	S034578					
Ludlum Model 2	9654	S030145					

Radiation Safety Precautions To Be Used

Al	radiation	proc	edur	es will be	condu	icted in ac	cordanc	ce with the	e NCI-F	rederick	K ALA	AR/	A prog	grar	n
as	described	in	the I	NCI-Frede	rick I	Radiation	Safety	Manual.	Isotope	usage	will	be	kept	to	a
mi	nimum, an	d ap	prop	riate safety	equip	ment and	persona	al protecti	on equip	ment w	ill be	use	d.		

(Principal Investigator's Signature)	(Date)