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001	Emergency Procedures	R2	10/2019	10/2022
002	General RAF Policies	R3	9/2020	9/2023
004	Spill Response	R6	10/2019	10/2022
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008	Liquid Nitrogen Filling of RAF HPGe Detectors	R6	1/2020	1/2023
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202	General Solid Sample Preparation	R2	9/2018	9/2021
206	Mechanical Pipet Operation	R0	4/2020	4/2023
210	Water Sample Preparation for LSC Analysis	R2	6/2008	Update as Needed
211	General Acidification of Samples	R1	9/2020	9/2023
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601	General Labware Cleaning	R3	11/2019	11/2022
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701	Mechanical Pipet Quality Control	R5	4/2020	4/2023
702	Germanium Detector Quality Control	R7	1/2020	1/2023
703	Report Approval and Data Validation (in development)	R0		
705	Radionuclide Spike Preparation	R5	9/2020	9/2023
706	Routine Calibration, Performance Check and Quench Curve Preparation for Liquid Scintillation Counters	R2	4/2020	4/2023
Forms				
R.P. Form #33, <u>Chain of Custody Record</u>			2/2020	2/2023

Archived Procedures (Various-as originally designated).

- 002. Instrument Loan Procedure (*In preparation*). No draft exists. Re-issued as General RAF Policies.
- 003. Source Loan Procedure (*In preparation*). No draft exists.
- 005. Chemical Hygiene Procedure. (Incorporated into RAF Chemical Hygiene Plan)
- 006. Issuing instruments to non-RAF personnel (Obsolete. RAF personnel will accompany any HPGe detector to be used in the field).
- 007. Material Move Request Survey for Offsite Sample Shipment. Incorporated into RAF 103.
- 021. Basic Acquisition with the TN1700 System. (Obsolete)
- 022. Multiple Peak Extraction on the TN1700 System. (Obsolete)
- 023. ES&H Section SQIP RPS.2
- 024. ES&H Section SQIP RPS.3
- 105. Procedure for Transporting RAF Samples To ANL.
- 200. Preparation of MAPEP Water Samples for Tritium Analysis by Packard LSC. RAF no longer participates in MAPEP.
- 203. AP0 Air Filter Preparation (*In preparation*). No draft exists.
- 204. Distillation of Vegetation Samples. No longer used.
- 205. Leaching of Soil Samples by Direct Mixing R2 6/2008. Not currently used.
- 206. Preparation of Large Air Filters and Disk Wipes (*In preparation*). No draft exists.
- 207. Distillation of Soil and Silt Samples (*In preparation*). No draft exists.
- 208. Sample Drying. This and SOP 204 are not currently used.
- 209. Preparation of Urine Samples. No longer used.

211. Preparation of Beam foils for Counting (*In preparation*). (Replaced by Procedure 501)
212. Preparation of Activation Tags for Counting (*In preparation*). To be replaced by procedure 500.
213. Gross Alpha/Beta Water Preparation. RAF does not participate in EML program.
214. Preparation of Lithium Hydroxide Solutions. No longer used.
301. Basic Acquisition with the Maestro II System (*In preparation*). (Obsolete)
304. Techniques for NaI(Tl) Measurements (*In preparation*). (Obsolete)
305. Beam Foil Counting (*In preparation*).--Replaced by Procedure 501
306. Activation Tag Counting (*In preparation*). To be replaced by Procedure 500
307. Waste Characterization at Remote Sites Using a Portable Davidson Gamma Ray Spectrometer. Spectrometer no longer exists. General procedure replaced by Procedure 308.
309. Instrument Performance Assessment for the Liquid Scintillation Counter. No draft exists.
400. Data Reduction for Gamma-Ray Spectra. Incorporated into procedure 302 Analysis of Gamma Emitting Radionuclides.
401. Determination of Detector Efficiency (*In preparation*).--To be incorporated into rewrite of Procedure 400.
402. Average Solid Angle Determinations (*In preparation*).--To be incorporated into rewrite of Procedure 400.
403. Absorption corrections (*In preparation*). To be incorporated into rewrite of Procedure 400.
404. Beam Foil Data Reduction (*In preparation*). Replaced by Procedure 501
405. Data Reduction for Activation Tags (*In preparation*).
500. Autoradiograph Procedure (*In preparation*).--Replaced by Procedure 501
502. Beam Foil Irradiations (*In preparation*).--Replaced by Procedure 501
503. General Counting Guidelines (*In preparation*).--Replaced by Procedure 501

- 701 3H Spike preparation for the LSC Procedure. – Incorporated into Procedure 705 (5/2016).
- 703. Efficiency Calibration of Gamma-Ray Spectrometers (*In preparation*).–To be incorporated into rewrite of Procedure 702.
- 704 Energy Calibration using ORTEC GammaVision software R2 – Incorporated into SOP 702 R4 rewrite.

R.P. Form #32, Radionuclide Analysis Facility Work Request Form –Replaced by current version of R.P. Form #33 COC Record.

RAF Form # 103, Vendor Shipment Worksheet 8/2018 – Incorporated into SOP 103.