



**International Isotopes Inc.**  
& *International Isotopes Idaho Inc.*

40-9058

April 21, 2005

Director, Office of Nuclear Materials Safety and Safeguards  
US Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Application for Source Material License.

Dear Director,

In accordance with §40.31 *Application for specific licenses* International Isotopes Inc. is formally submitting an application to possess and utilize depleted uranium, solid form as uranium tetrafluoride (UF<sub>4</sub>) or uranium oxide (UO<sub>2</sub> or U<sub>3</sub>O<sub>8</sub>). The proposed licensed activity will be to produce high purity fluorine gas compounds, such as germanium tetrafluoride (GeF<sub>4</sub>) or boron trifluoride (BF<sub>3</sub>). This robust chemical reaction converts UF<sub>4</sub> into U<sub>3</sub>O<sub>8</sub>/UO<sub>2</sub> during the fluorine gas production process.

Enclosed with this letter is the completed NRC Form 313, Application for Material License, a Decommissioning Funding Plan, prepared in accordance with §40.36 *Financial assurance and recordkeeping for decommissioning* and an Environmental Report.

Should you have any questions, please contact me by phone at (208) 524-5300 or by email at [jjmiller@intisoid.com](mailto:jjmiller@intisoid.com).

Sincerely,

John J. Miller, CHP  
Radiation Safety Officer

Enclosures as stated

cc:

J. J. Miller file (JJM-2005-11)

Mr. Michael Raddatz (7 hard copy enclosure 1 electronic enclosures)  
Chief, Nuclear Materials Licensing Branch Region IV

Mr. Doug Walker (electronic enclosures)  
Idaho Department of Environmental Quality (IDEQ).


Mr. Jack Whitten (electronic enclosures)  
Chief, Nuclear Materials Licensing Branch Region IV

## Decommissioning Funding Plan

International Isotopes, Inc.  
1359 Commerce Way  
Idaho Falls, Idaho 83401

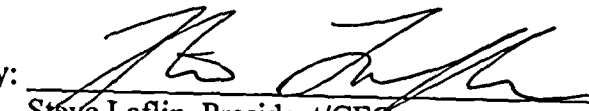
April 19, 2005

Prepared By:

  
John Miller CHP, Radiation Safety Officer,  
International Isotopes Inc.

4/19/05  
Date

Approved By:

  
Steve Laflin, President/CEO  
International Isotopes Inc.

4.21.05  
Date

## Decommissioning Funding Plan

International Isotopes Inc.  
1359 Commerce Way  
Idaho Falls, Idaho 83401

April 19, 2005

### *Executive Summary*

*Pursuant to §40.36(a) a Decommissioning Funding Plan is being submitted for the International Isotopes Inc. Idaho Falls facility, located at 1359 Commerce Way, Idaho Falls, Idaho.*

*This Decommissioning Funding Plan has been developed using guidance provided in Regulatory Guide-3.66, Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70 and 72. Reference [3].*

*The estimated cost of decommissioning the aforementioned facility is \$116,716.*

Task	Estimated Cost
Planning and Preparation	\$18,044
Facility Characterization	\$7,349
Decontamination/ Dismantling	\$7,689
Packaging	\$8,631
Radioactive Waste Disposition	\$61,672
Final Survey	\$13,785
<b>Total Cost Estimate:</b>	<b>\$117,169</b>

*This decommissioning cost estimate will be reviewed at least annually to validate the assumptions. And will be revised as necessary when changes in the facility processes or radiological characteristics would affect the cost of decommissioning by a factor of 10%.*

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## 1.0 FACILITY BACKGROUND

The facility is located in the St. Leon Business Park on the north side of Idaho Falls, Idaho. The building is constructed of expanded polymer block filled with approximately four inches of concrete. International Isotopes Inc began leasing the facility in February 2004. Prior to the Company's occupancy the facility was used as a warehouse for vinyl siding and window distributor. There is no reason to believe radioactive materials were introduced into this facility by the prior occupants. Base line radiation and contamination measurements support this assumption.

The I<sup>3</sup> facility is equipped with its own septic system that currently serves the Men's and Women's restrooms and floor drains located in the restrooms and utility closet. A catch tank will be installed to hold cooling water overflow and neutralized waste water. Catch tank water may be disposed of in the septic system if uranium concentrations do not exceed background levels.

The facility is approximately 80 feet wide by 100 feet deep. Room numbers and functions are listed in the table below. Refer to the facility diagram enclosed with this plan.

Room	Function
101	Reception Area
102	Conference Room
103	Utility Hall Way
103A	Utility Closet
103B	Men's Restroom
103C	Women's Restroom
104	Employee Lounge
201	FEP Manager Office
202	FEP Engineering Office
301	Gas Production
302	Analytical Laboratory
303	Depleted Uranium Drum Storage
304	Powder Handling (UF <sub>4</sub> , U <sub>3</sub> O <sub>8</sub> , Metal Oxides)

Interior walls of the production area are constructed of steel siding and sheet rock. The production area floors are constructed of sealed concrete. There are no floor drains associated with the production area and approximately 350 linear feet of ventilation ducting. Approximately 90% of the gas production system is located on a skid, which can be removed from the facility utilizing a fork lift.

The following list describes the major equipment items that will be used in the radiological work processes and the locations of the equipment.

Drum Cone and Tipper: A stainless-steel cone with a metering valve and gate valve will be used to transfer UF<sub>4</sub> from a 55 gallon drum into a smaller mixing container in 7 kg batches to be transferred into the UF<sub>4</sub> glove box. The drum hood described below will be utilized to provide local HEPA filtered ventilation during transfer activities.

UF<sub>4</sub> Glove Box : A glove box will be used to control contamination and airborne radioactivity levels during the mixing of UF<sub>4</sub> and GeO<sub>2</sub>. This glove box will be located in Room 304, Powder Handling and is approximately 5 feet long by 2 feet deep and 2 feet tall. The glove box will be maintained at a negative pressure during operations utilizing a HEPA filtered air mover.

Drum Hood: A drum hood will be utilized to transfer the roasted depleted uranium, consisting primarily of U<sub>3</sub>O<sub>8</sub> with a small amount of un-reacted UF<sub>4</sub> and metal oxide (GeO<sub>2</sub>) into a 55 gallon drum. The drum hood will be sized to fit over two 55 gallon drums. One side will be used to house the U<sub>3</sub>O<sub>8</sub> collection drum. The other side will be used to control the initial opening of the UF<sub>4</sub> drum. The drum hood will be located in Room 304, Powder Handling and is 72 inches long, 30 inches deep and extends 16 inches above the top of a standard 55 gallon drum.

Gas Production Fume Hood: A fume hood approximately, 12 ft wide by 6 ft deep and 9 feet in height will be used to house the fluorine gas extraction system. This fume hood is not expected to become contaminated during operations. This fume hood will be located in Room 301 Gas Production.

ICP-MS Fume Hood: A fume hood approximately, 12 ft wide by 6 ft deep and 9 feet in height will be used to house the Perkin Elmer ICP-MS system. This fume hood is not expected to become contaminated during operations. This fume hood will be located in Room 302 Analytical Laboratory.

Perkin Elmer ICP-MS: The Perkin Elmer ICP-MS is an automated trace element gas/liquid sampling system. The system is currently utilized to determine the impurity concentrations at the parts per trillion level of fluorine gas products. This unit is located in Room 302, Analytical Laboratory. Based on pilot scale tests, this unit is not expected to become contaminated during operations.

HEPA Filtered Vacuum Cleaner: A radiological grade HEPA vacuum is utilized for radiological work controls. The HEPA vacuum will be utilized during decommissioning and will be disposed of as radioactive waste or transferred to an authorized individual for reuse.

NFS-RPS HEPA Filtered Air mover: This 700 cfm HEPA filtered air mover will provide ventilation for the UF<sub>4</sub> glove box, the drum hood and the powder handling room.

## 2.0 DECOMMISSIONING COST ESTIMATE

Decommissioning costs have been sub-divided into 7 specific tasks. The following assumptions have been applied to these tasks.

- a. Decommissioning will occur at least one year following the final production run for that facility.
- b. Contaminated items which can not be decontaminated will meet the Department of Transportation Surface Contaminated Object – I (SCO-I) criteria.
- c. No short-lived contamination remains in the facility.
- d. No contamination exists in the unrestricted areas (Class 3 and non-impacted).
- e. Assumed hourly labor rates listed below are base rates. 25% margin adjustment accounted for in cost estimate.

	Hourly Rate
Project Manager	\$64.00
Health Physicist	\$60.00
Safety Officer	\$60.00
Engineer	\$56.00
Technician	\$32.00
Laborer	\$20.00
Clerical	\$12.00

- f. 1 hour of laborer time requires at least 0.5 hours of technician work
- g. 8 hours of technician work requires at least 1 hour of health physicist work
- h. 8 hours of technician work requires at least 1 hour of supervisor work
- i. 8 hours of health physicist work results in at least 1 hour of clerical work
- j. 8 hours of safety officer work results in at least 1 hour of clerical work
- k. 8 hours of supervisor work results in at least 1 hour of clerical work
- l. 8 hours of engineer work results in 1 hour of clerical work
- m. All analytical samples will be counted on-site using I<sup>3</sup> equipment during facility characterization.
- n. Radiological survey instrumentation and supplies required for licensed operations are available for use during decommissioning.
- o. Final survey plan development, execution and data evaluation will be performed using guidance provided by NUREG-1500, Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM).
- p. All areas and equipment will be decontaminated prior to dismantling and decommissioning.

- q. No more than three 55 gallon drums of depleted uranium exist on site at any one time.
- r. Radioactive waste will be shipped directly to a licensed waste disposal facility.
- s. No credit is taken for salvageable equipment, which could be transferred to an authorized licensed individual for reuse.

## **2.1 PLANNING AND PREPARATION**

The planning and preparation phase of decommissioning consists of developing project process documents, project management plan, health and safety plan and decommissioning/final survey plan. Refer to Appendix 1 Planning and Preparation Cost Estimate.

## **2.2 FACILITY CHARACTERIZATION**

Facility characterization will be performed following the guidance provided in the MARSSIM. Characterization typically consists of; historical site assessment followed by scoping and characterizations surveys. I<sup>3</sup> has a great advantage in that I<sup>3</sup> is only the second occupant of the Commerce Way Facility and the first to utilize the facility to handle radioactive material. Areas where the potential for radiological contamination exists are surveyed on a weekly basis. These surveys are documented and maintained at the facility. A sufficient facility characterization may be completed simply by reviewing and compiling work control logs and the routine radiological surveys performed throughout the facility during licensed operations. Validation of the historical facility data collected will be accomplished by completing general area radiological surveys. This greatly diminishes the effort required in completing the facility characterization. Refer to Appendix 1 Facility Characterization Cost Estimate. It is assumed that it will require 10 minutes of technician time for every 100 ft<sup>2</sup> of surface area surveyed, regardless of area classification.

## **2.3 DECONTAMINATION/ DISMANTLING**

Decontamination and dismantling efforts are expected to be minimal. The following supports the basis for this assumption.

- a. Prior to licensed operations, the building surfaces in the areas where radioactive materials are to be handled and stored have been sealed in an effort to prevent the migration of radioactive contamination into the building materials as a result of a radioactive spill or through process activities.
- b. The interior walls in the production areas are constructed of steel siding or drywall with the original painted surface (prior to license operations) exposed.
- c. There exists no floor drains and minimal ventilation ductwork in the production area.
- d. Handling of uncontained depleted uranium will be performed in HEPA filtered fume hoods or glove boxes.
- e. Work control procedures and engineering controls limit the build-up of radioactive contamination in the work place.



- f. The gas production system is not expected to become contaminated down stream of the in-line gas particulate filter and is housed in a skid that can be removed from the facility by simply disconnecting the system utilities.
- g. If decontamination of equipment is not feasible, the majority of equipment utilized at the facility is small enough to be packaged directly into standard containers with minimal size reduction.

Refer to Appendix 1 Decontamination/Dismantling Cost Estimate.

## **2.4 PACKAGING**

The following assumptions were used to estimate the amount and type of radioactive waste generated as a result of decommissioning:

- a. Equipment used in licensed activities, such as the fume hoods, glove boxes and associated ancillary equipment cannot be decontaminated to levels that permit unrestricted release.
- b. The equipment identified above will meet the Department of Transportation's Surface Contaminated Object-1 (SCO-1) definition §173.403, Title 49 Code of Federal Regulations.
- c. Low-level radioactive waste meeting the SCO-1 criteria will be packaged in Industrial Packages Type 1 (IP-1) reference §173.411, Title 49 Code of Federal Regulations.
- d. The RAM Compactor located at I<sup>3</sup>'s 4137 Commerce Circle Facility (NRC License Number 11-27680-01) is available for volume reduction of compactable radioactive waste
- e. Low-level radioactive waste, such as anti-contamination clothing, generated as a result of decontamination and dismantling activities would fill the volume of three 55-gallon drums.

Refer to Appendix 1 Packaging Cost Estimate.

## **2.5 RADIOACTIVE WASTE DISPOSITION**

Radioactive waste will be transferred directly to a licensed disposal facility. Refer to Appendix 1, Radioactive Waste Disposition Cost Estimate.

## **2.6 FINAL STATUS SURVEY**

Final status surveys will be performed in accordance with the MARSSIM (Reference [1]). The following assumptions were used to develop a cost estimate for final status surveys.

- a. Final status surveys will be performed after all equipment and radioactive waste has been removed from the facility.

- b. Unless otherwise specified building surfaces located greater than 8 feet from the floor surface in Class 1 Areas will be surveyed as Class 2 Areas.
- c. Unless otherwise specified building surfaces located greater than 8 feet from the floor surface in Class 2 areas will be surveyed as Class 3 areas. Building surfaces located greater than 16 feet from the floor surface in Class 2 areas will be considered Non-impacted.
- d. Unless otherwise specified building surfaces located greater than 8 feet from the floor surface in Class 3 areas will be considered Non-impacted.
- e. Unless otherwise specified building exterior surfaces will be considered Class 3 Areas up to 8 feet. Building exterior surfaces greater than 8 feet in elevation will be considered Non-impacted.
- f. Class 1 areas require 45 minutes of technician time for every 100 ft<sup>2</sup> surveyed.
- g. Class 2 areas require 20 minutes of technician time for every 100 ft<sup>2</sup> surveyed.
- h. Class 3 areas require 10 minutes of technician time for every 100 ft<sup>2</sup> surveyed.

Refer to Table 1 for area square footage and classification. Refer to Appendix 1, Final Status Survey Cost Estimate.

The following definitions from the MARSSIM are included for clarity:

**Class 1 area:** An *area* that is projected to require a *Class 1 final status survey*.

**Class 1 survey:** A type of *final status survey* that applies to *areas* with the highest potential for contamination, and meet the following criteria: (1) *impacted*; (2) potential for delivering a dose above the *release criterion*; (3) potential for small *areas of elevated activity*; and (4) insufficient evidence to support reclassification as *Class 2* or *Class 3*.

**Class 2 area:** An *area* that is projected to require a *Class 2 final status survey*.

**Class 2 survey:** A type of *final status survey* that applies to *areas* that meet the following criteria: (1) *impacted*; (2) low potential for delivering a dose above the *release criterion*; and (3) little or no potential for small *areas of elevated activity*.

**Class 3 area:** An *area* that is projected to require a *Class 3 final status survey*.

**Class 3 survey:** A type of *final status survey* that applies to *areas* that meet the following criteria: (1) *impacted*; (2) little or no potential for delivering a dose above the *release criterion*; and (3) little or no potential for small *areas of elevated activity*.

**Impacted area:** Any *area* that is not *classified as non-impacted*. Areas with a possibility of containing *residual radioactivity* in excess of natural background or fallout levels.

**Non-impacted area:** Areas where there is no reasonable possibility (extremely low probability) of residual contamination. Non-impacted areas are typically located off-site and may be used as background *reference areas*.

## 2.7 COST ESTIMATE ADJUSTMENTS

The Decommissioning Funding Plan (DFP) is a living document and will require revision when facility processes or radiological characteristics change. At a minimum the DFP will be reviewed as follows:

- a. At least annually
- b. Prior to amendments to the NRC License
- c. Following any event that is reasonably likely to have a significant (change greater than 10%) impact on the estimated decommissioning costs, such as fires, large radioactive spills and facility expansions.

Reviews to the DFP will be conducted by the RSO or by the I<sup>3</sup> ALARA Committee and documented via interoffice memo, in the ALARA Committee meeting minutes or as evidence by document revision.

Adjustments to the DFP following a review will be performed if the decommissioning cost estimate increases by more than 10%. Revisions to the DFP will be transmitted to the NRC as soon as they have been completed.

## 3.0 FINANCIAL ASSURANCE CERTIFICATION

The financial surety for the decommissioning of I<sup>3</sup>'s Commerce Way Facility will be provided by an irrevocable letter of credit in an amount equal to or greater than the estimated decommissioning cost of \$117,000 drawn on International Isotopes Inc.'s (I<sup>3</sup>'s) money market account at Texas State bank. The letter of credit will be on an initial 5 year term with automatic renewal drawn as such so that only payments for decontamination and decommissioning of the Commerce Way Facility will be authorized.

Consistent with §40.36 of Title 10 Code of Federal Regulations, financial assurance will be obtained after the application has been approved and the license issued but before the receipt of licensed material in quantities requiring financial assurance. A signed original of the financial instrument obtained to satisfy the financial assurance for decommissioning requirements will be submitted to the NRC prior to receipt of licensed material in quantities requiring financial assurance.

#### 4.0 REFERENCES

- [1] NUREG-1575, *Multi-Agency Radiation Survey and Site Investigation Manual*, Washington D.C: Nuclear Regulatory Commission, December 1997
- [2] § 30.35, Title 10 Code of Federal Regulations, Washington D.C: Nuclear Regulatory Commission, January 1, 2000.
- [3] Regulatory Guide-3.66, *Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70 and 72*, Washington D.C: Nuclear Regulatory Commission, June 1990
- [4] DOE-HDBK-3010-94, *Airborne Release Fractions/Rates and Respirable Fractions for Nonreactor Nuclear Facilities, Volume 1- Analysis of Experimental Data*, December 1994.
- [5] NUREG/CR-1754, *Technology, Safety and Costs of Decommissioning Reference Non-Fuel-Cycle Nuclear Facilities*, Washington D.C: Nuclear Regulatory Commission, December 1981

**Table 1: Area Square Footage and Classification**

**Area Square Footage and Classification**

Area Description	Floor	Walls (≤ 8 ft)	Ceilings/Walls (> 8 ft.)	Furniture/equipment
Reception Area Room 101 <sup>(1)</sup>	Class 3	Class 3	Non-impacted	
	263	544	263	150
Conference Room 102 <sup>(1)</sup>	Class 3	Class 3	Non-impacted	
	345	600	345	150
Utility/Restrooms Rooms 103, 103A, 103B, 103C	Class 3	Class 3	Non-impacted	
	178	888	178	0
Employee Lounge Room 104	Class 3	Class 3	Non-impacted	
	389	744	389	150
FEP Manager Office Room 201	Class 3	Class 3	Non-impacted	
	325	640	325	150
FEP Engineering Office Room 202	Class 3	Class 3	Non-impacted	
	845	1000	845	250
Gas Production Room 301	Class 2	Class 2	Class 3	
	360	608	720	250
Analytical Laboratory Room 302	Class 2	Class 2	Class 3	
	580	792	1160	880
Depleted Uranium Drum Storage Room 303	Class 2	Class 2	Class 3	
	100	320	360	0
Powder Handling Room 304	Class 1	Class 2	Class 3	
	212	504	676	400
Remainder of Process Area	Class 2	Class 2	Class 3	
	5400	3760	10100	500
Building Exterior (Site grounds 3 ft away from building exterior included in floor area calculation)	Class 3	Class 3	Non-impacted	
	1075	2860	3700	60

	Square Footage			Total Misc.
Total Class 1	212	0	0	2940
Total Class 2	6440	5984	0	
Total Class 3	3420	7276	13016	
Total Non-impacted	0	0	6045	

(1) Room not yet constructed but planned and therefore considered in the decommissioning funding plan.

Figure 1: International Isotopes Inc FEP First Floor

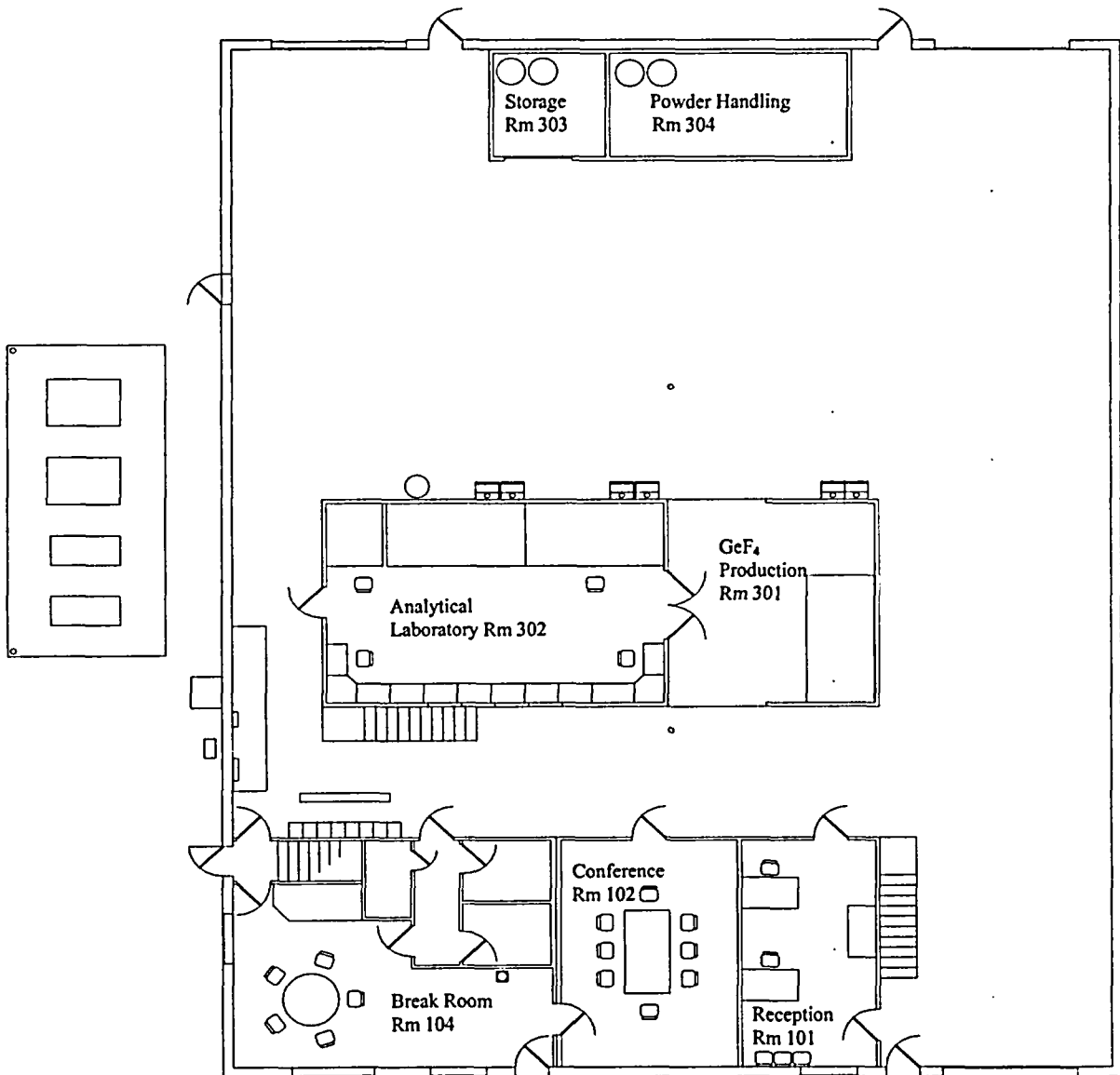
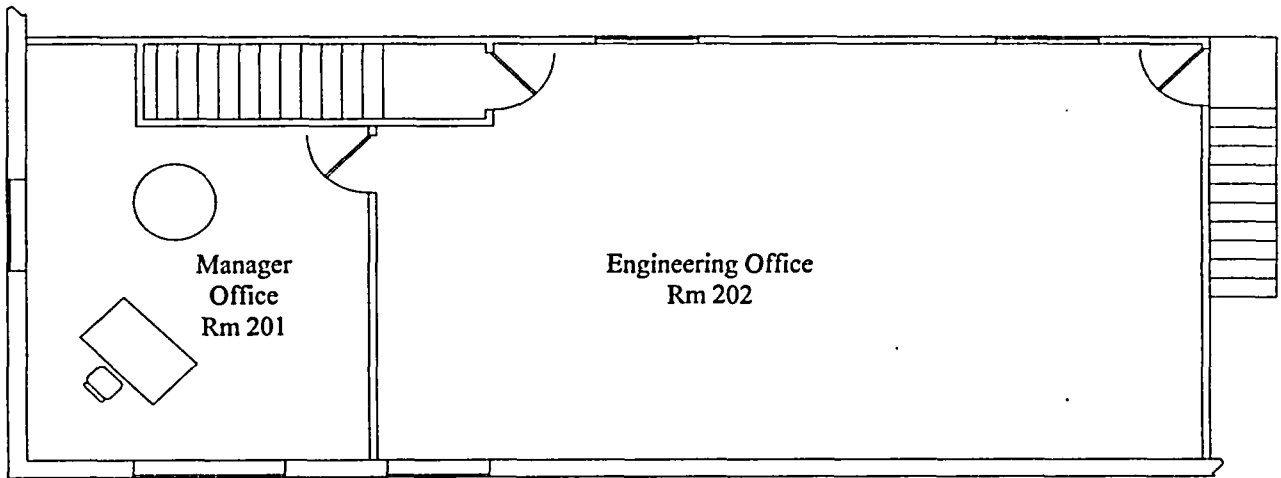


Figure 2: International Isotopes Inc FEP Second Floor



## Appendix A.1

### Planning and Preparation Cost Estimate

Task	Project Mngmt.	Health Physicist	Safety Officer	Engineer	Clerical
	(hr)	(hr)	(hr)	(hr)	(hr)
Project Process Documents	4	4	4	30	5.25
Project Management Plan	4	4	4	40	6.50
Health and Safety Plan	6	20	20	6	6.50
Decommissioning/Final Survey Plan	8	50	20	10	11
<b>Total Hours</b>	<b>22</b>	<b>78</b>	<b>48</b>	<b>86</b>	<b>29.25</b>
<b>Hourly Rate</b>	<b>\$64</b>	<b>\$60</b>	<b>\$60</b>	<b>\$56</b>	<b>\$12</b>
	<b>\$1,408</b>	<b>\$4,680</b>	<b>\$2,880</b>	<b>\$4,816</b>	<b>\$351</b>
Administrative supplies:	\$300				
Margin Adjustment:	1.25				
					<b>\$18,044</b>



## Appendix A.2

### Facility Characterization Cost Estimate

	Project Mngmt.	Health Physicist	Technician	Clerical
Interior Areas	(hr)	(hr)	(hr)	(hr)
Reception Area Room 101	0.25	1	2	0.41
Conference Room 102	0.30	1	2.4	0.49
Utility/Restrooms Rooms 103, 103A, 103B, 103C	0.26	1.1	2.1	0.43
Employee Lounge Room 104	0.35	1.4	2.8	0.57
FEP Manager Office Room 201	0.30	1.2	2.4	0.49
FEP Engineering Office Room 202	0.61	2.5	4.9	1.00
Gas Production Room 301	0.40	1.6	3.2	0.65
Analytical Laboratory Room 302	0.71	2.9	5.7	1.16
Depleted Uranium Drum Storage Room 303	0.16	1	1.3	0.26
Powder Handling Room 304	0.38	2	3	0.61
Remainder of Process Area	4.11	16.45	32.9	6.68
Process Area Ventilation Duct	0.63	2.50	5	1.02
Building Exterior (Site grounds 3 ft away from building exterior included in floor area calculation)	1.59	6.35	12.7	2.58
<b>Total Hours</b>	<b>9.80</b>	<b>39.20</b>	<b>78.40</b>	<b>15.93</b>
<b>Hourly Rate</b>	<b>\$64</b>	<b>\$60</b>	<b>\$32</b>	<b>\$12</b>
	\$627	\$2,352	\$2,509	\$191
Administrative supplies:	\$200			
Margin Adjustment:	1.25			
				<b>\$7,349</b>



## Appendix A.4

### Packaging Cost Estimate

	Project Mngmt. (hr)	Health Physicist (hr)	Technician (hr)	Laborer (hr)	Clerical (hr)
Decontamination/Dismantling Waste (3)					
55 Gallon Drums	0.75	1.50	6	12	0.56
Packaging UF <sub>4</sub> glovebox as SCO-1	0.13	0.25	1	2	0.09
Packaging U <sub>3</sub> O <sub>8</sub> drum hood as SCO-1	0.06	0.13	0.5	1	0.05
Package ICP-MS fume Hood as SCO-1	0.19	0.38	1.5	3	0.14
Package Gas Production fume hood as SCO-1	0.06	0.13	0.5	1	0.05
Performing DOT radiological surveys	1.25	2.5	10	0	0.94
Completing DOT Shipping papers	2	8	16	0	2.50
<b>Total Hours</b>	<b>4.44</b>	<b>12.88</b>	<b>35.5</b>	<b>19</b>	<b>4.33</b>
<b>Hourly Rate</b>	<b>\$64</b>	<b>\$60</b>	<b>\$32</b>	<b>\$20</b>	<b>\$12</b>
	<b>\$284</b>	<b>\$773</b>	<b>\$1,136</b>	<b>\$380</b>	<b>\$52</b>
					<b>\$2,624</b>
<b>Material Costs</b>					
		<b>Cost</b>	<b>Quantity</b>	<b>Total</b>	
55 gallon Type-A drum (FBF Nuclear)		\$60	3	\$180	
7A-OP-6 Type A metal overpack for 6 55 gallon drums		\$1,200	3	\$3,600	
Misc. packing supplies (wrapping and bracing material):		\$300			
Administrative Supplies:		\$200			
Margin Adjustment:		1.25			
				<b>\$8,631</b>	

## Appendix A.5

### Radioactive Waste Disposition Costs

Task	Project	Health	Technician	Laborer	Clerical
	Mngmt.	Physicist			
	(hr)	(hr)	(hr)	(hr)	(hr)
Loading truck	2	2	4	8	0.5
Survey truck	0.5	0.5	1	0	0.125
<b>Total Hours</b>	<b>2.5</b>	<b>2.5</b>	<b>5</b>	<b>8</b>	<b>0.625</b>
<b>Hourly Rate</b>	<b>\$64</b>	<b>\$60</b>	<b>\$32</b>	<b>\$20</b>	<b>\$12</b>
Labor Costs:	\$160	\$150	\$160	\$160	\$8
			Total Labor Costs:		\$638

#### Disposal Fees

Direct Disposal US Ecology Hanford Solid Radioactive Waste:	Mainifest Fee	Site Use Fee	Disposal Fee	Disposition Cost
(3) 7A-OP-6 Type A overpacks	\$10,550	\$8,462	\$25,559	\$44,571
			Taxes and regulatory fee:	\$1,917
			Estimated Transportation Cost:	\$1,500
				\$48,625
			Administrative Supplies:	\$75
			Margin Adjustment:	1.25

**Total Radioactive Material Disposal Cost: \$61,672**

## Appendix A.6

### Facility Final Status Survey Cost Estimate

	Project Mngmt.	Health Physicist	Technician	Clerical
<b>Interior Areas</b>	(hr)	(hr)	(hr)	(hr)
Reception Area Room 101	0.16	0.16	1.3	0.20
Conference Room 102	0.20	0.20	1.6	0.25
Utility/Restrooms Rooms 103, 103A, 103B, 103C	0.23	0.23	1.8	0.28
Employee Lounge Room 104	0	0	1.9	0.30
FEP Manager Office Room 201	0.20	0.20	1.6	0.25
FEP Engineering Office Room 202	0.39	0.39	3.1	0.48
Gas Production Room 301	0.55	0.55	4.4	0.69
Analytical Laboratory Room 302	0.81	0.81	6.5	1.02
Depleted Uranium Drum Storage Room 303	0	0	2	0.31
Powder Handling Room 304	1	1	4.4	0.69
Remainder of Process Area	5.91	5.91	47.3	7.39
Building Exterior (Site grounds 3 ft away from building exterior included in floor area calculation)	0.83	0.83	6.6	1.03
Data Evaluation	15	40	8	7.9
Close Out Radiological Survey Report	10	30	4	20
<b>Total Hours</b>	<b>35</b>	<b>80</b>	<b>93</b>	<b>41</b>
<b>Hourly Rate</b>	<b>\$64</b>	<b>\$60</b>	<b>\$32</b>	<b>\$12</b>
	\$2,250	\$4,809	\$2,982	\$487
Administrative supplies:	\$500			
Margin Adjustment:	1.25			
				<b>\$13,785</b>