Description	Element Weight	lsotope Weight	Inventory Frequency	Material in Process	Inventory Technique	FNAL Numbers	MBA Custodian	Signature & Date for Physical Inventory Verification
ero Prototype stat in Outdoor Behind Dzero embly Building	21,016 Kg	42 Kg	Every 2 years	N/A	Container Verification	See inventory list	Pete Simon (02972N, pgs@fnal.gov, x2852)	
erium Tanks and linders at the Railhead	Not Reported	78.8 Ka	Every 2 years	N/A	Item Count (125 cylinders and 4 tanks)	9003	Tom Miller (13091N, tjmiller@fnal.gov, x3585, x2898)	

7-11-2022

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	A	В	С	D	E	F	G	Тн	I	J	K
1	Location	Material and Material Type Code (MTC)	Description	Element Weight	Isotope Weight	Inventory Frequency	Material in Process	Inventory Technique	FNAL Numbers	MBA Custodian	MBA Custodian Signature & Date for Physical Inventory Verification
2	Radiation Physics Calibration Facility	Am-241Be Sealed Neutron Sources (MTC 44)	Am-241 Beryllium Sealed Neutron Sources Strored in the Neutron Source Storage Safe in Cave 1	11 Grams	11 Grams	Every 2 years (conducted monthly per radioactive source program)	N/A	item Count (4 AmBe sources)	9000	Dan Curatolo (15611N, danc@fnal.gov, x3743)	
3	Site 40	Depleted Uranium (MTC 10)	Depleted Uranium in the Large Safe	2 Kg	Below Reporting Threshold	Every 2 years	N/A	Item Count (6 items)	124, 125, 126, 127, 129, 3603	Dan Curatolo (15611N, danc@fnal.gov, x3743)	
4	ME7 North	Depleted Uranium (MTC 10)	28 Depleted Uranium Plates Contained inside a Locked Canister	98 Kg	0.2 Kg	Every 2 years	N/A	Container Verification (Canister)	3605-3632	Dave Hockin (06020N, hockin@fnal gov, x4498)	
5	ME7 North	Depleted Uranium (MTC 10)	Central Calorimter Electromagnetic Module (CCEM) Containing Depleted Uranium Plates	529 Kg	1 Kg	Every 2 years	N/A	Container Verification (CCEM module)	829	Dave Hockin (06020N, hockin@fnal.gov, x4498)	
6	NM4 Enclosure	Depleted Uranium (MTC 10)	Hadron Calorimeter Containing 16 Depleted Uranium Plates	1,863 Kg	4 Kg	Every 2 years	N/A	Container Verification (16 Plates in Array - as accessible)	830-845	Rick Tesarek (12680N, tesarek@fnal.gov, x8609)	
7	DZero Assembly Building	Depleted Uranium (MTC 10)	DZero Calorimeter Containing Depleted Uranium Plates in Collision Hall Behind Shield Wall	237,792 Kg	476 Kg	Every 2 years	N/A	Shield Wall Verification- Cannot Conduct Container or Item Count	See inventory list	Pete Simon (02972N, pgs@fnal.gov, x2852)	Pete Digitally signed by Pete Simon Data: Simon 2022,08.02 10:30:54-05'00'

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	A	В	С	D	E	F	G	Н	1	J	K
1	Location	Material and Material Type Code (MTC)	Description	Element Weight	Isotope Weight	Inventory Frequency	Material in Process	Inventory Technique	FNAL Numbers	MBA Custodian	MBA Custodian Signature & Date for Physical Inventory Verification
8	DZero Assembly Building Outdoor Storage	Depleted Uranium (MTC 10)	DZero Prototype Cryostat in Outdoor Area Behind Dzero Assembly Building	21,016 Kg	42 Kg	Every 2 years	_N/A	Container Verification	See inventory list	Pete Simon (02972N, pgs@fnal.gov, x2852)	Pete Digitally signed by Pete Simon Date: Simon 10:30:08 -05:00'
9	Railhead Fenced Storage Area West of Lundy Barn	Deuterium (MTC 86)	Deuterium Tanks and Cylinders at the Railhead	Not Reported	78.8 Kg	Every 2 years	N/A	Item Count (125 cylinders and 4 tanks)	9003	Tom Miller (13091N, tjmiller@fnal.gov, x3585, x2898)	

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	A	В	С	D	E	F	G	Т н			K
1	Location	Material and Material Type Code (MTC)	Description	Element Weight	Isotope Weight	Inventory Frequency	Material in Process	Inventory Technique	FNAL Numbers	MBA Custodian	MBA Custodian Signature & Date for Physical Inventory Verification
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3	Site 40	Depleted Uranium (MTC 10)	Depleted Uranium in the Large Safe	2 Kg	Below Reporting Threshold	Every 2 years	N/A	Item Count (6 items)	124, 125, 126, 127, 129, 3603	Dan Curatolo (15611N, danc@fnal.gov, x3743)	
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5	ME7 North	Depleted Uranium (MTC 10)	Central Calorimter Electromagnetic Module (CCEM) Containing Depleted Uranium Plates	529 Kg	1 Kg	Every 2 years	N/A	Container Verification (CCEM module)	829	Dave Hockin (06020N, hockin@fnal.gov, x4498)	
6	NM4 Enclosure	Depleted Uranium (MTC 10)	Hadron Calorimeter Containing 16 Depleted Uranium Plates	1,863 Kg	4 Kg	Every 2 years	N/A	Container Verification (16 Plates in Array - as accessible)	830-845	Rick Tesarek (12680N, tesarek@fnal.gov, x8609)	Kathy Digitally signed by Kathy Graden, Graden UID: Grade Date: 2022.08.03 n 14.11.24.05'00'
7	DZero Assembly Building	Depleted Uranium (MTC 10)	DZero Calorimeter Containing Depleted Uranium Plates in Collision Hall Behind Shield Wall	237,792 Kg	476 Kg	Every 2 years	N/A	Shield Wall Verification- Cannot Conduct Container or Item Count	See inventory list	Pete Simon (02972N, pgs@fnal.gov, x2852)	

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### Kathy J Graden

From: Richard J Tesarek

Sent: Friday, July 08, 2022 9:10 AM

To: Kathy J Graden
Cc: Richard J Tesarek

Subject: Re: NM4 Depleted Uranium Physical Inventory

#### Hi Kathy,

I can confirm that the depleted uranium calorimeter is still in place. That said, if you would provide a PDF form to sign, I'm happy to sign off on this material digitally. I do now know of a way to digitally sign an Excel spreadsheet.

I would normally be happy to meet with you in person (always a pleasure), however, I will be away from the lab for  $\sim$  a month starting 7/16.

Rick

On Jul 7, 2022, at 10:49, Kathy J Graden <graden@fnal.gov> wrote:

Hi Rick.

I hope you and yours are doing well.

It's time again to conduct a physical inventory of the depleted uranium in the hadron calorimeter at NM4 whenever you have access.

Will you please confirm that the hadron calorimeter is still in the beamline?

Will you please sign the section of the form that has your name listed (row 6) and email the signed form back to me?

If you want to meet in person to do this, I will be able to meet you the week of July 18. Please let me know if you prefer to meet.

Thanks very much for your help. I appreciate it so much. Kind regards, Kathy

#### Kathy Graden

Radiation Physicist

ES&H Section Radiation Physics Operations Fermi National Accelerator Laboratory P.O. Box 500, MS 371 Batavia, Illinois 60510 USA

630 840 4939 office www.fnal.gov graden@fnal.gov

<FERMILAB AREAS APPROVED FOR USE AND STORAGE OF NUCLEAR MATERIALS JULY 2022, xlsx>

	Α	В	С	D	E	F	G	н	1	J	K
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3	Site 40	Depleted Uranium (MTC 10)	Depleted Uranium in the Large Safe	2 Kg	Below Reporting Threshold	Every 2 years	N/A	Item Count (6 items)	124, 125, 126/127, 129/3603	Dan Curatolo (15611N, danc@fnal.gov, x3743)	On Custo
4	ME7 North	Depleted Uranium (MTC 10)	28 Depleted Uranium Plates Contained inside a Locked Canister	98 Kg	0.2 Kg	Every 2 years	N/A	Container Verification (Canister)	3605-3632	Dave Hockin (06020N, hockin@fnal.gov, x4498)	
5	ME7 North	Depleted Uranium (MTC 10)	Central Calorimter Electromagnetic Module (CCEM) Containing Depleted Uranium Plates	529 Kg	1 Kg	Every 2 years	N/A	Container Verification (CCEM module)	829	Dave Hockin (06020N, hockin@fnal.gov, x4498)	Dilphot
6	NM4 Enclosure	Depleted Uranium (MTC 10)	Hadron Calorimeter Containing 16 Depleted Uranium Plates	1,863 Kg	4 Kg	Every 2 years	N/A	Container Verification (16 Plates in Array - as accessible)	830-845	Rick Tesarek (12680N, tesarek@fnal.gov, x8609)	
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Kathy Graden Kathy Graden