Leaps in Hybrid Dosimetry

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Mirion Connect 2025

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STP
Nuclear Operating Company

Dosimetry Services Overview

- 2nd Largest Dosimetry Services Provider
- 5 Locations (3 US / 2 Intl)
- 1.3M Monitored Individuals (50K customers)
- 25% Using Instadose® Dosimeters

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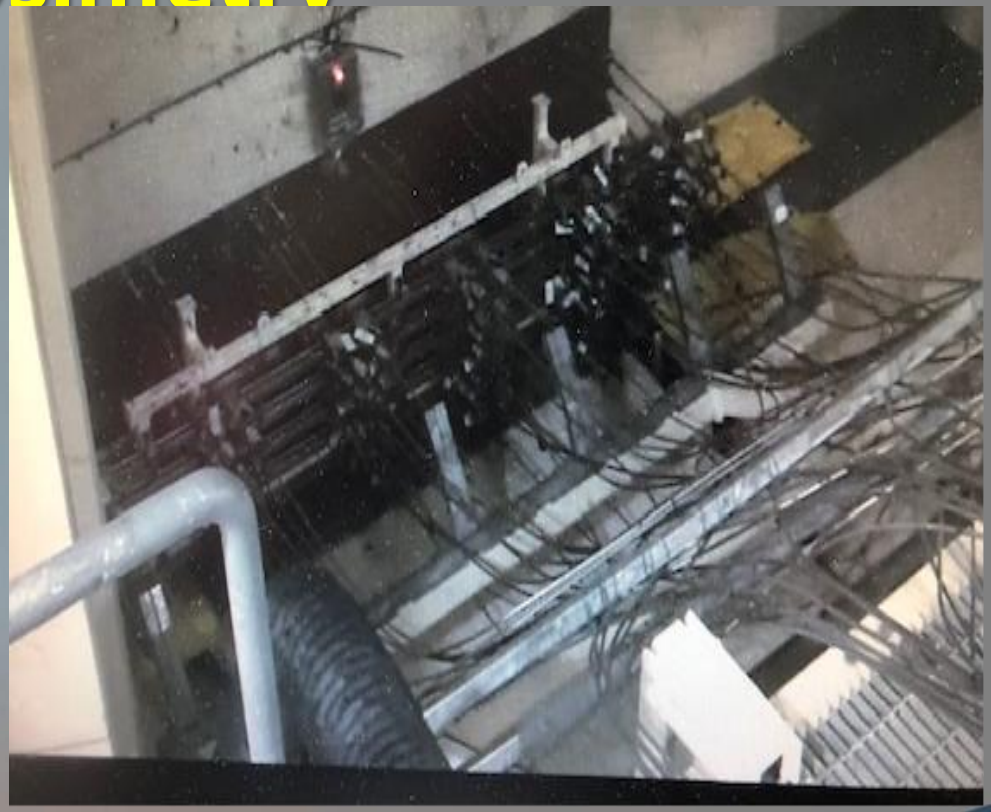
Why STP chose Instadose Vue Dosimetry

- The easy of dosimeter "processed" or read by Bluetooth while on site and still issued to a person to acquire "record" dose
- Cost Savings by reassigning badges without extra charges.
- Instant knowledge of dose discrepancies between active and passive dosimetry
- Dose is time stamped when received
- Electronic labels



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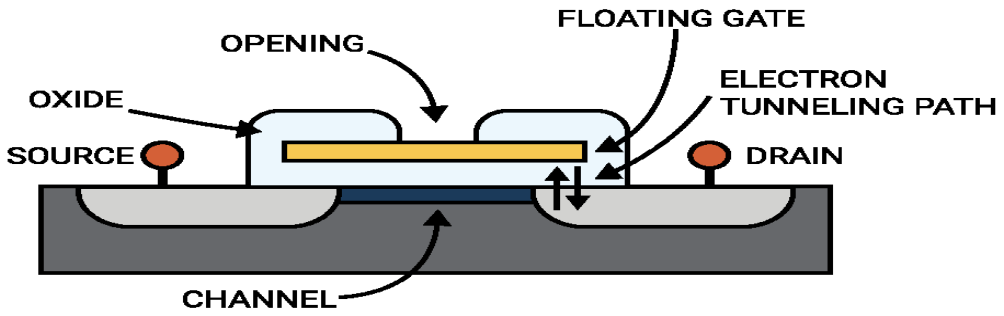
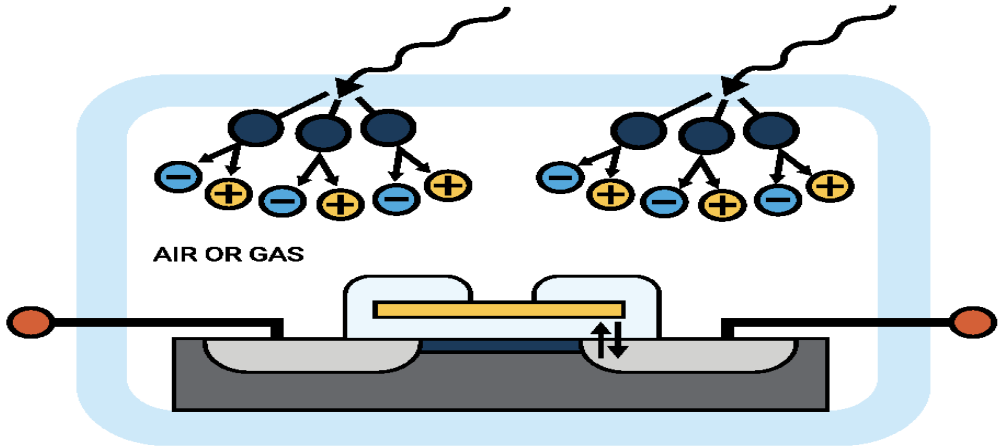
Direct Ion Storage (DIS) Technology

DIRECT Ion Storage (DIS)

Self-reading for immediate determination of exposure.



- Surface of the floating gate is exposed to surrounding space.
- Ions in the form of electric charge are gathered within the floating gate.
- Source anode has a non-volatile memory cell element.



- Memory cell is surrounded by ion chamber filled with gas.
- Secondary electrons generated by initial interactions within chamber wall ionize the gas inside.
- Ions are separated between the electrode and wall then stored in the memory element cell.

Why Instadose Vue for Passive Dosimetry

National Voluntary Laboratory Accreditation Program

IONIZING RADIATION DOSIMETRY **NVLAP LAB CODE 100555-0**

100555-B6, APex (Badge Type 30) – OSL-BeO2-B*x* for ANSI N13.11-2009 categories IA, IIA, IIIB, and IVAB.

100555-B7, Instadose ID-1+ - ID-1+ for ANSI N13.11-2009 categories IA and IIA.

100555-B8, Instadose 2 - ID-2 for ANSI N13.11-2009 categories IA, IIA, IIIB, and IVAB.

100555-B9, Genesis Ultra (Badge Type 36) - TLD-MCP-BP for ANSI N13.11-2009 categories IA, IIA, IIIA, IVAA and VCA.

100555-C2, Instadose Vue - for ANSI N13.11-2009 categories IA and IIA.

100555-C4, Instadose ID Vue-Beta - for ANSI N13.11-2009 categories IA, IIA, IIIA and IVAA.

100555-C5, Instadose ID Vue-Neutron - for ANSI N13.11-2009 categories IA, IIA, IVAA and

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Dosimetry Inventory at STP

Instadose Vue NVLAP accredited dosimeters

- Photon
- Photon/beta
- Photon/beta/neutron

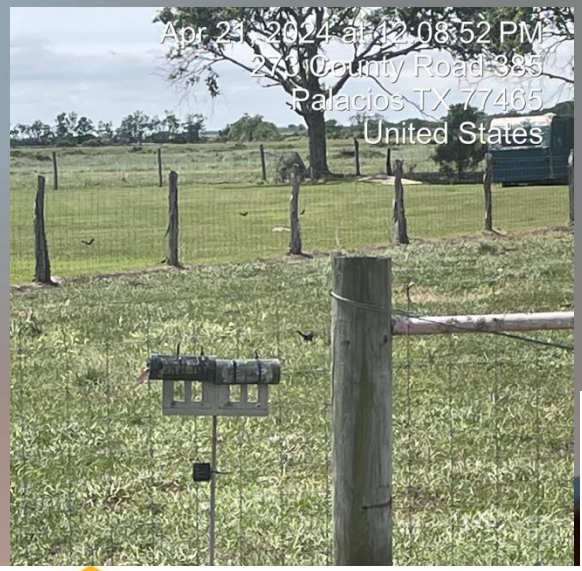
Badge Inventory at STP:

1200 inhouse workers

900-1500 outage and multibadges

950 emergency Plan badges

250 environmental badges



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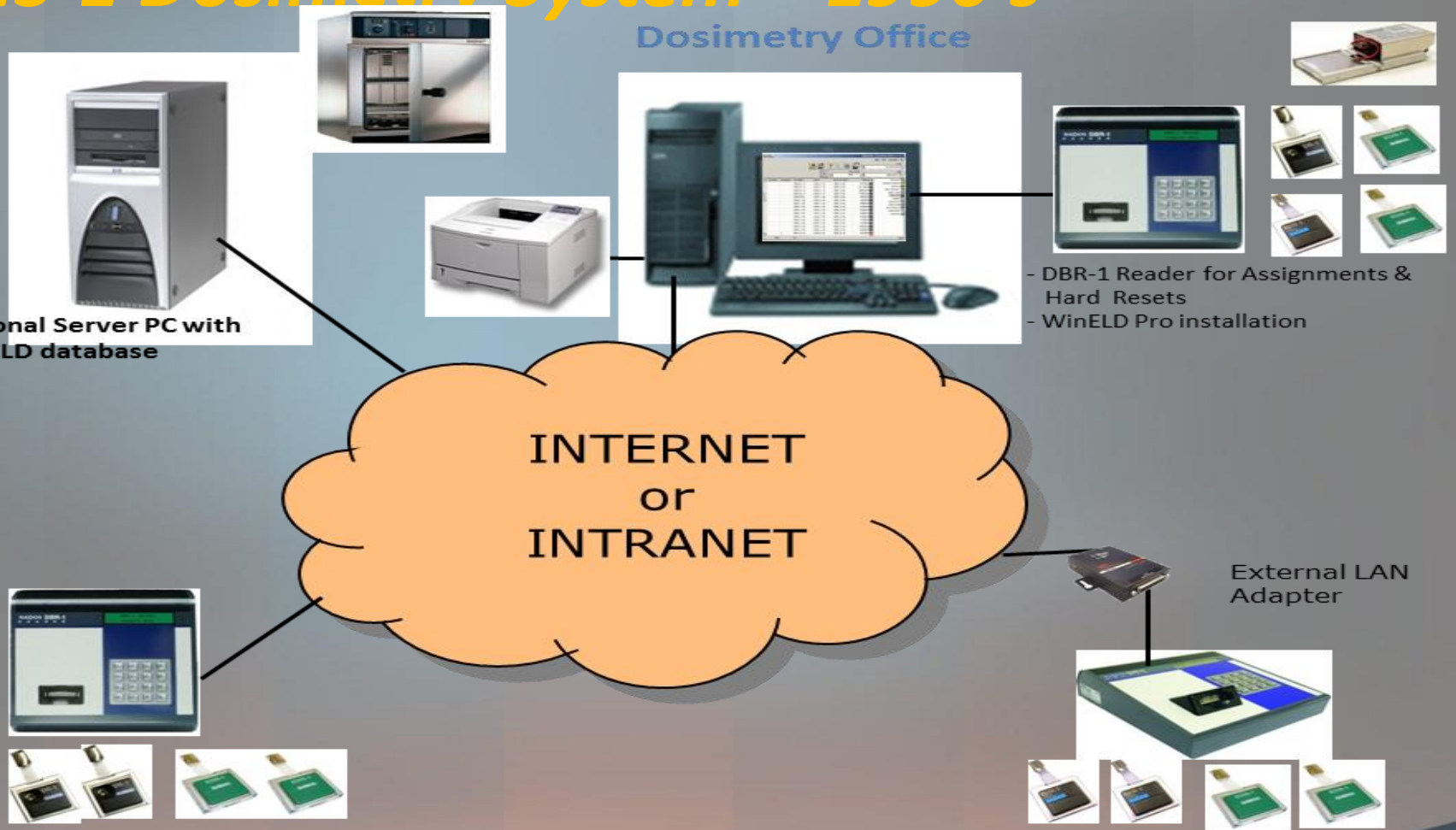
The Future of Dosimetry Monitoring is Mirion

DIS-1 Dosimetry System – 1990's



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DIS-1 Dosimetry System

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Instadose 1 – late 2000's

Energy Response: Photon 5 keV - 6 MeV
Min Rep Dose: 3 mrem - 500 rem (0.03 mSv - 5 Sv)
*1 mrem (0.01 mSv) upon request

USB-Compatible Dosimeter

"Plug-in & Read"

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Instadose®+ - 2010's

Energy Response: Photon 5 keV - 6 MeV
Min Rep Dose: 5 mrem - 500 rem (0.05 mSv - 5 Sv)

"PUSH" to Perform Manual Read

Detector

Detector Battery (10 year life)

Communication Battery (5 year life)
*weekly read cycle

- ✓ Dose data stored until communicated/transmitted.
- ✓ Wireless transmission (via InstaLink hotspot, Instadose mobile app, PC with instaLink-USB).

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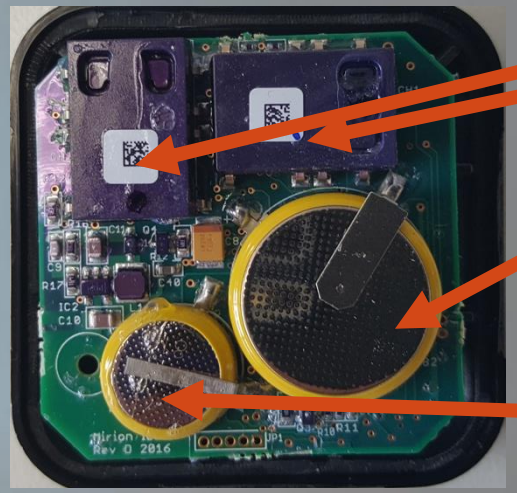
Instadose®2 – late 2010's

Energy Response: Photon 5 keV - 6 MeV
Beta ≥ 0.8 MeV

Min Rep Dose: 10 mrem - 500 rem (0.1 mSv - 5 Sv)

"PUSH" to Perform Manual Read



- ✓ **Dual-detector for independent deep [Hp(10)] & shallow [Hp(0.07)] measurements of photon & high-energy beta radiation.**
- ✓ **Wireless transmission (via InstaLink hotspot, Instadose mobile app, PC with instaLink-USB).**

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What's NEW with the Instadose®VUE – launched January 2024

Improved Technology

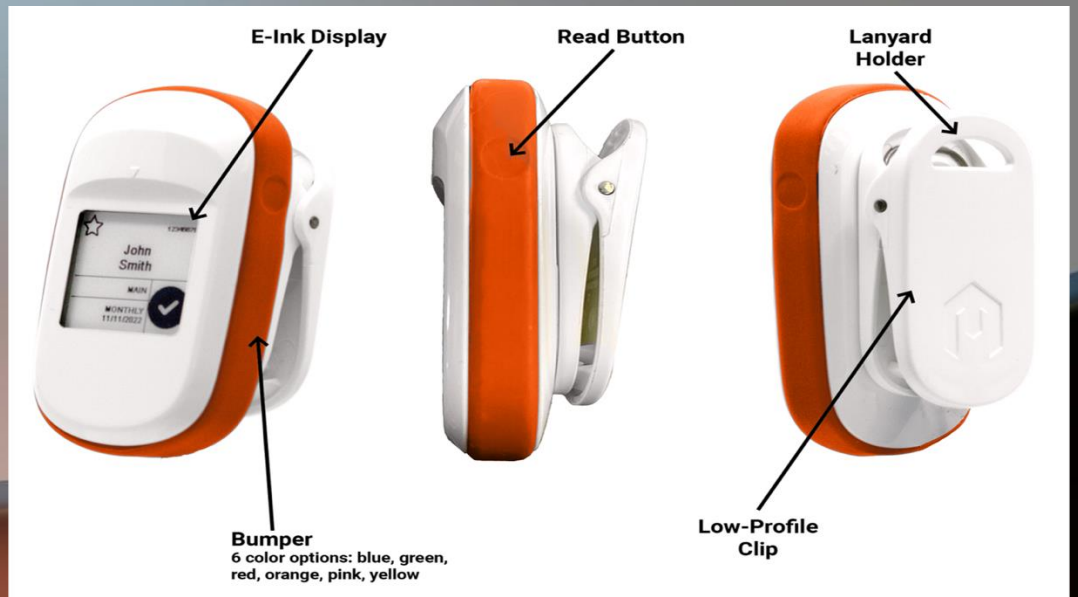
- Utilizes the most advanced wireless, processing & communication technologies available
- More robust, stable connectivity & communications
- Increased battery life & performance

Electronic Display Screen*

- Displays dynamic wearer & operational information
  *no dose is displayed on dosimeter screen

All 3 Measurements (launched in phases)

- Photon (Available now)
- Beta (Available in late 2025)
- Neutron (Available in early 2026)



The new InstadoseVUE

Advanced technology for increased safety

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Internal Detector in Instadose Vue

DIS Detector

Communication Battery

Note – Display not shown

Broken screen in Instadose Vue, was sent to Mirion and "processed"

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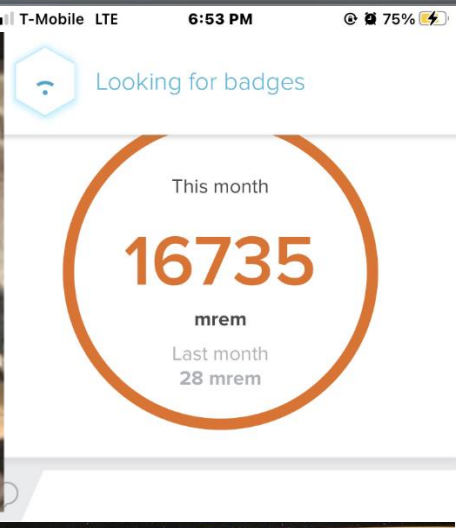
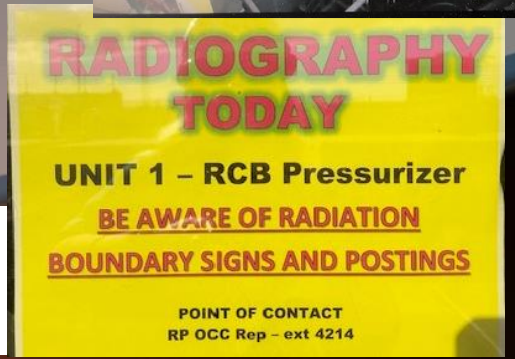
Jobs at STP that used Instadose Vue

1. Vistors (working vistors, NRC, ANI, oversight, radiography
2. Westinghouse (refuel workers that arrive after RX shutdown, S/G crew, management)
3. S/G Jumpers packs
4. Short term workers i.e. Freeze tech, engineering vendor walkdowns





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MRD values for ID and NVAP categories

Instadose®VUE | Wireless Dosimeter Photon + Beta + Neutron

Specifications	 Instadose®VUE Photon	 Instadose®VUE Beta	 Instadose®VUE Neutron
Minimum Reportable Dose	Photon: 5 mrem (0.05 mSv)	Photon: 5 mrem (0.05 mSv) Beta: 7 mrem (0.07 mSv)	Photon: 5 mrem (0.05 mSv) Beta: 7.5 mrem (0.075 mSv) *3 mrem available upon request* Neutron: 20 mrem (0.2 mSv)
Useful Dose Range	5 mrem – 500 rem* (0.05 mSv – 5 Sv)	5 mrem - 500 rem* (0.05 mSv - 5 Sv)	5 mrem - 500 rem* (0.05 mSv - 5 Sv)
Energy Response	Photon 20 keV - 7 MeV	Photon: 20 keV to 7 MeV Beta: 70 keV to 0.935 keV	Photon: 20 keV to 7 MeV Beta: 70 keV to 0.935 keV Neutron (*configurable*): 2.5 E-8 MeV to 14 MeV

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Lessons Learned for Implementing the Instadose Vue for Passive Dosimetry at STP

- Fall 2024 STP outage workers used around 355 Instadose (ID) Vue photon
  - Westinghouse Refuel -fast turnaround results but had to do some training on FME.
  - Westinghouse Steam Generator (S/G) work primary and secondary side
    - Multi-badging of (S/G) jumpers into the S/G tubes. Had three dosimeters on each location, extra work and cost.
  - Instrument and Control (I&C) technicians on Reactor (Rx) head instrumentation. Two dose extensions performed.
  - Radiation Protection technicians providing job coverage. Had manual work w/o API
  - Mechanical Maintenance group performing welding valve work. Had one broken ID
  - Visitors needed to manually upload API data
  - Area Monitors. Still need to integrate with GEDDS

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Implementing the Instadose Vue for Passive Dosimetry at STP

TLD Number	TLD (mrem)	DMC 3000 (mrem)	Instadose Vue (mrem)	Calculated difference DMC vs TLD	body location
3623148614	57	50.3	54	6.85%	left upper arm
3623148181	71	63.5	65	2.31%	head
3623148195	102	98.6	102	3.33%	left upper arm
3623149116	73	95.4	96	0.62%	back
3623149112	106	106.3	104	-2.21%	head
3623148905	101	91.9	100	8.10%	left thigh
3623148891	103	95.6	98	2.45%	right thigh
3623148794	87	87	93	6.45%	gonads
3623148251	105	91.8	96	4.38%	chest
3623148198	102	100.4	107	6.17%	right upper arm
3623148273	66	70.7	64	-10.47%	chest
3623148360	76	80	86	6.98%	right thigh
3623148403	58	55	56	1.79%	back
3623148425	76	73.2	77	4.94%	head
3623148697	64	66.4	69	3.77%	gonads
3623148701	75	73.1	75	2.53%	left thigh
3623149031	68	63.2	69	8.41%	left upper arm
3623149073	87	70.8	75	5.60%	right upper arm
dose for 12 S/G jumpers	3459	3312.9	3410	3.48%	
	mrem	mrem	mrem		

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Making Dose Reads Quick & Easy

On-Demand Dose Reads in Seconds

The hourglass icon indicates that the device is searching for a connection.

The cloud icon confirms that the data is being uploaded.

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Enhancing Engagement with Visual Feedback

Other Status Communication Icons

Dose Read Warning Icons

Call Support Icon

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Log in Process for RCA

Foreign Material Exclusion (FME) was set up with loop design. Racks are used for storing Instadose Vue on site

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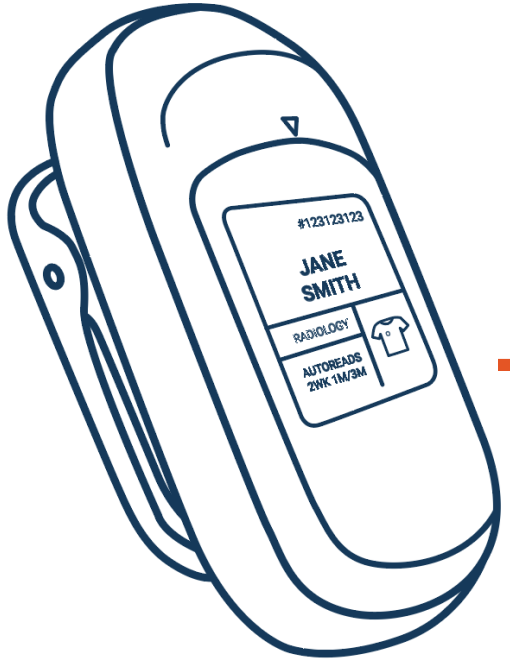
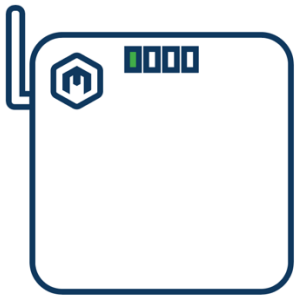
How Instadose®VUE Works?

Understanding the Instadose Ecosystem



Instadose®VUE Dosimeter

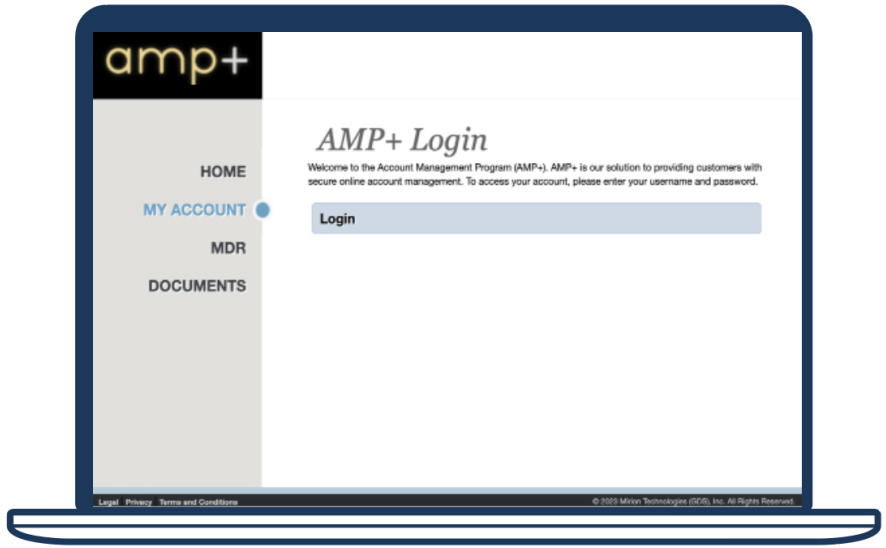


30 Foot Range

InstaLink™3 Gateway

5 Foot Range

Instadose Companion
Mobile App



Internet-enabled computer
(access to instadose.com)

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Instadose® Communication

- **Bluetooth® Range:** dosimeters transmitting doses must be within 50 feet of the hotspot).
- **Transmission Capacity:** 10 dosimeters/badges per minute.
- Ideal when there is a **high concentration of badges (>10) stored together when not worn** (e.g. badge board, locker room, etc.)

InstaLink™3 Gateway Status	LED 1	LED 2	LED 3	LED 4
Uploading/Transmitting Dose Data	Green	Green	Blinking Green	Off
No Power To Unit	Off	Off	Off	Off
NTP Failed	Green	Yellow	Off	Red
No Internet Access	Green	Blinking Yellow	Off	Red

InstaLink hotspot will listen & communicate with Instadose wireless dosimeters (within range) to transmit dose data to Mirion secure servers where it is saved in the wearer's dose record.

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Mitigate Risks & Liability

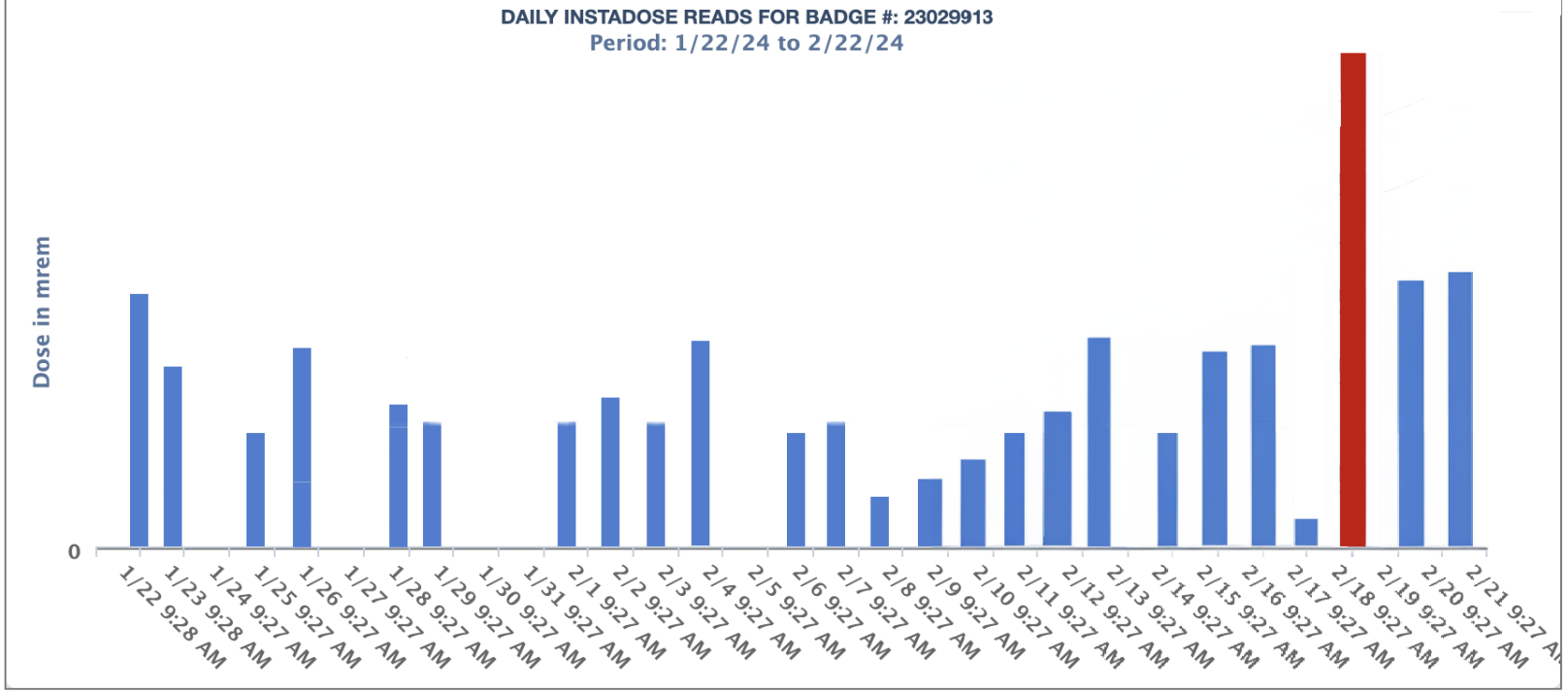
Comprehensive Dose Insights with Unparalleled Access

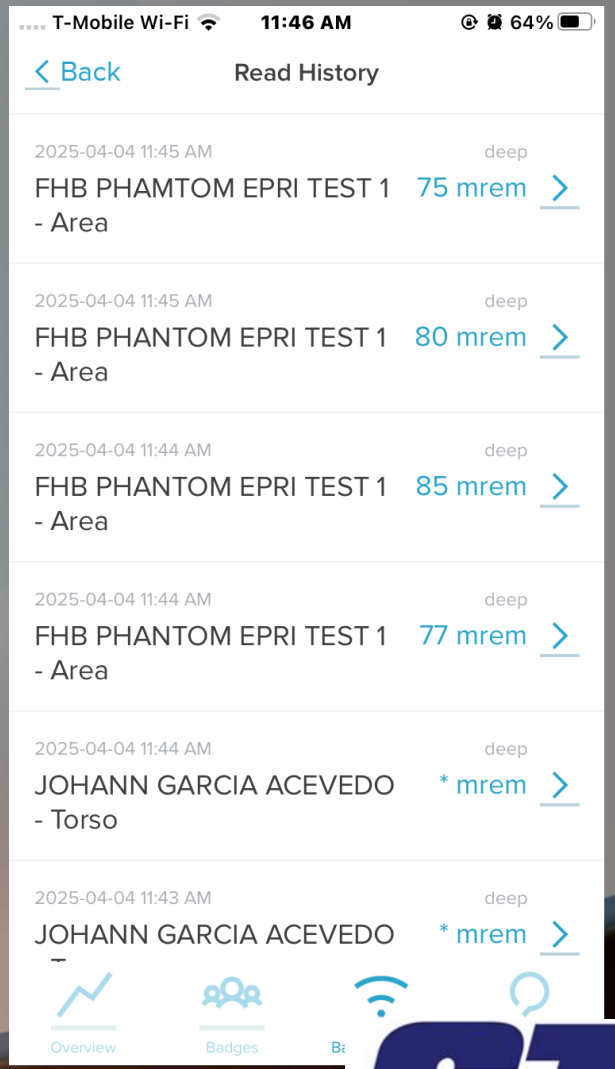
Instadose **DAILY READS**

Serial #: 23029913: JOHN SMITH

Wearer: JOHN SMITH: 3/8/2023 to present

Period: 01/22/2024 to 02/22/2024 Show





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Mitigate Risks & Liability

Comprehensive Dose Insights with Unparalleled Access

Badge Serial #: 30065645

Account	Baseline	Reads	Graphs	Technical Notes	Review	Exceptions	Motions										
30065645	07/09/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
30065645	07/08/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
30065645	07/07/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
30065645	07/06/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30065645	07/05/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30065645	07/04/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30065645	07/03/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
30065645	07/02/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30065645	07/01/2025	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30065645	06/30/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
30065645	06/29/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
30065645	06/28/2025	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1
30065645	06/27/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
30065645	06/26/2025	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
30065645	06/25/2025	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1
30065645	06/24/2025	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
30065645	06/23/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30065645	06/22/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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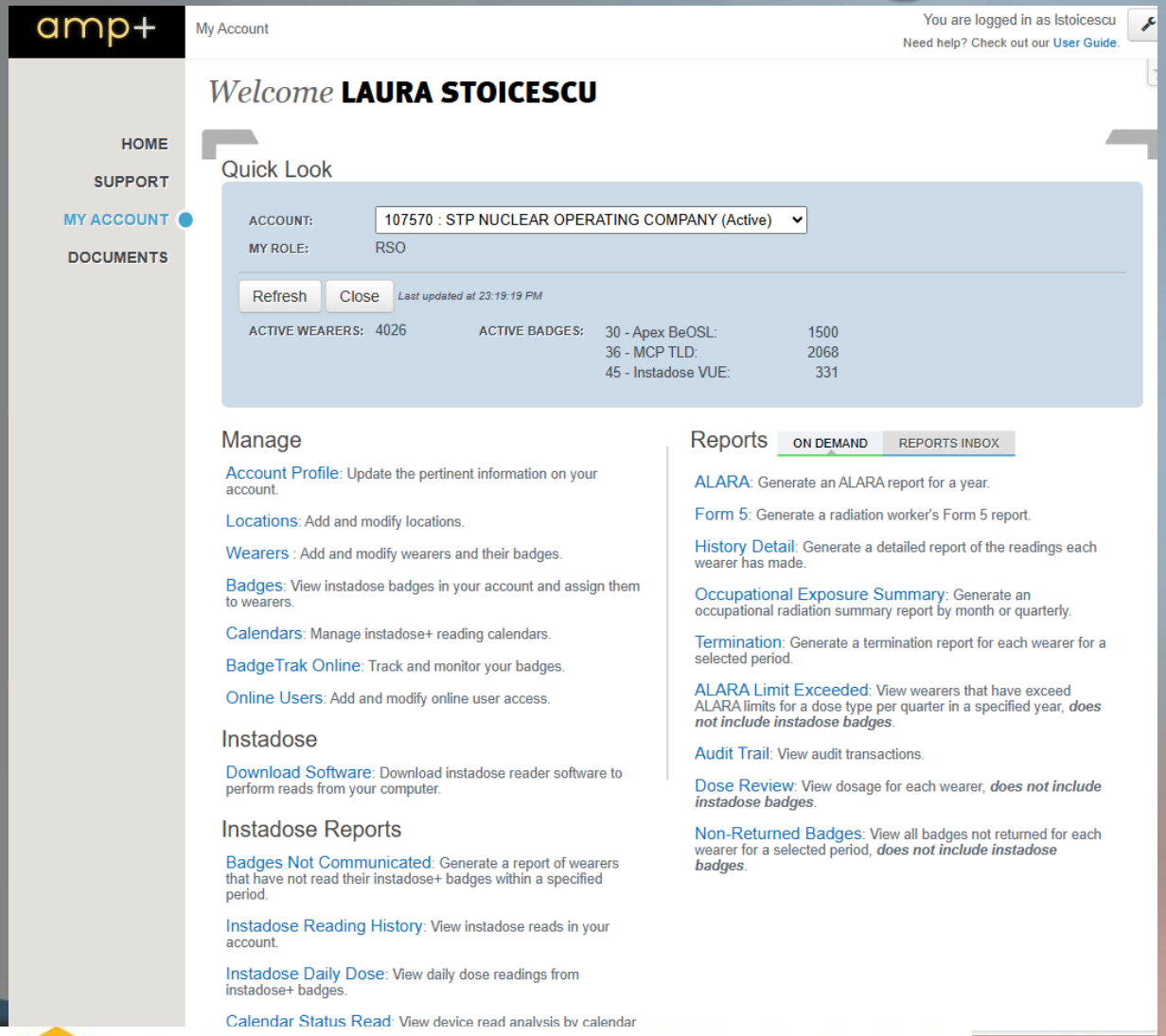
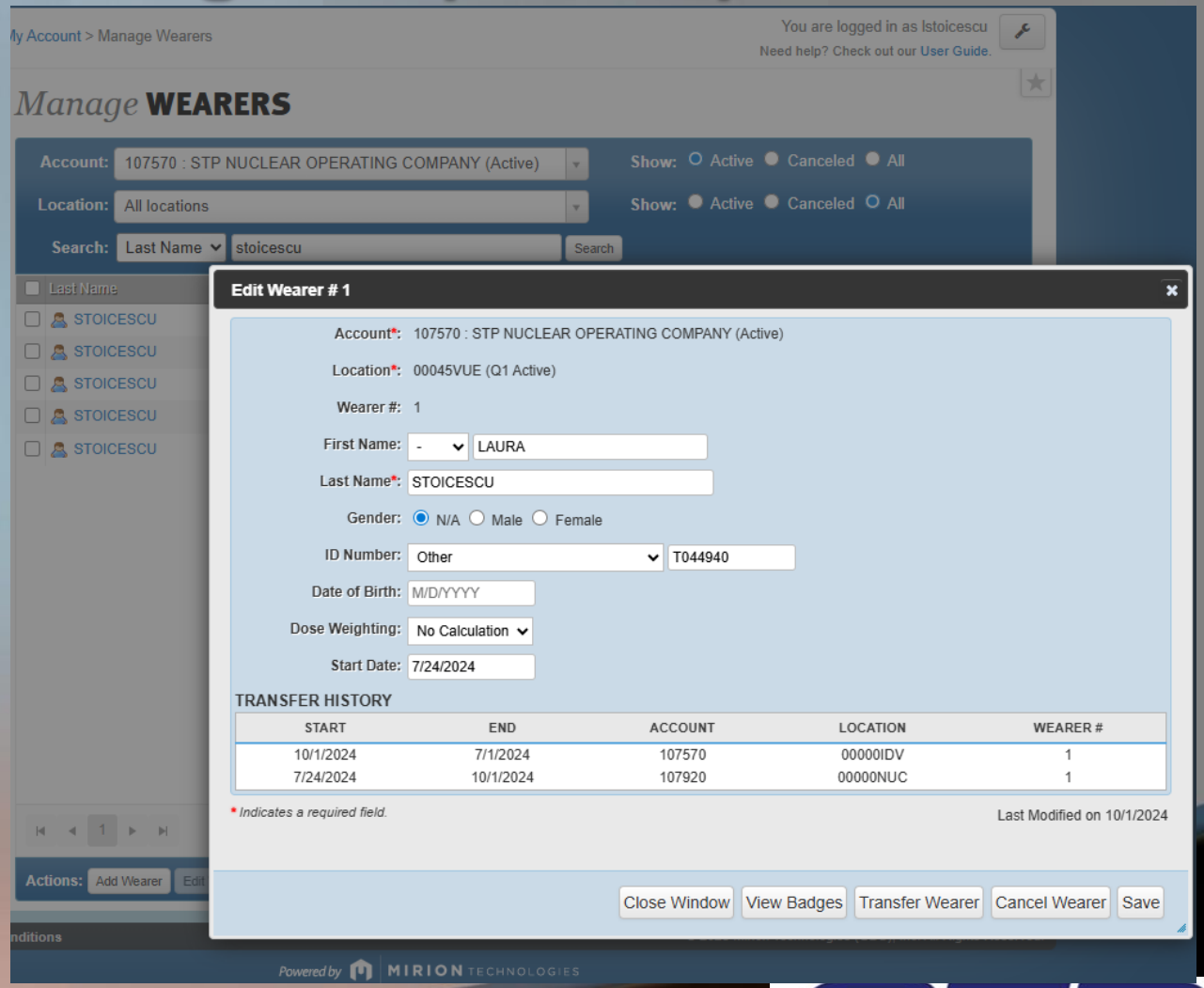
Account Management Program (AMP+)





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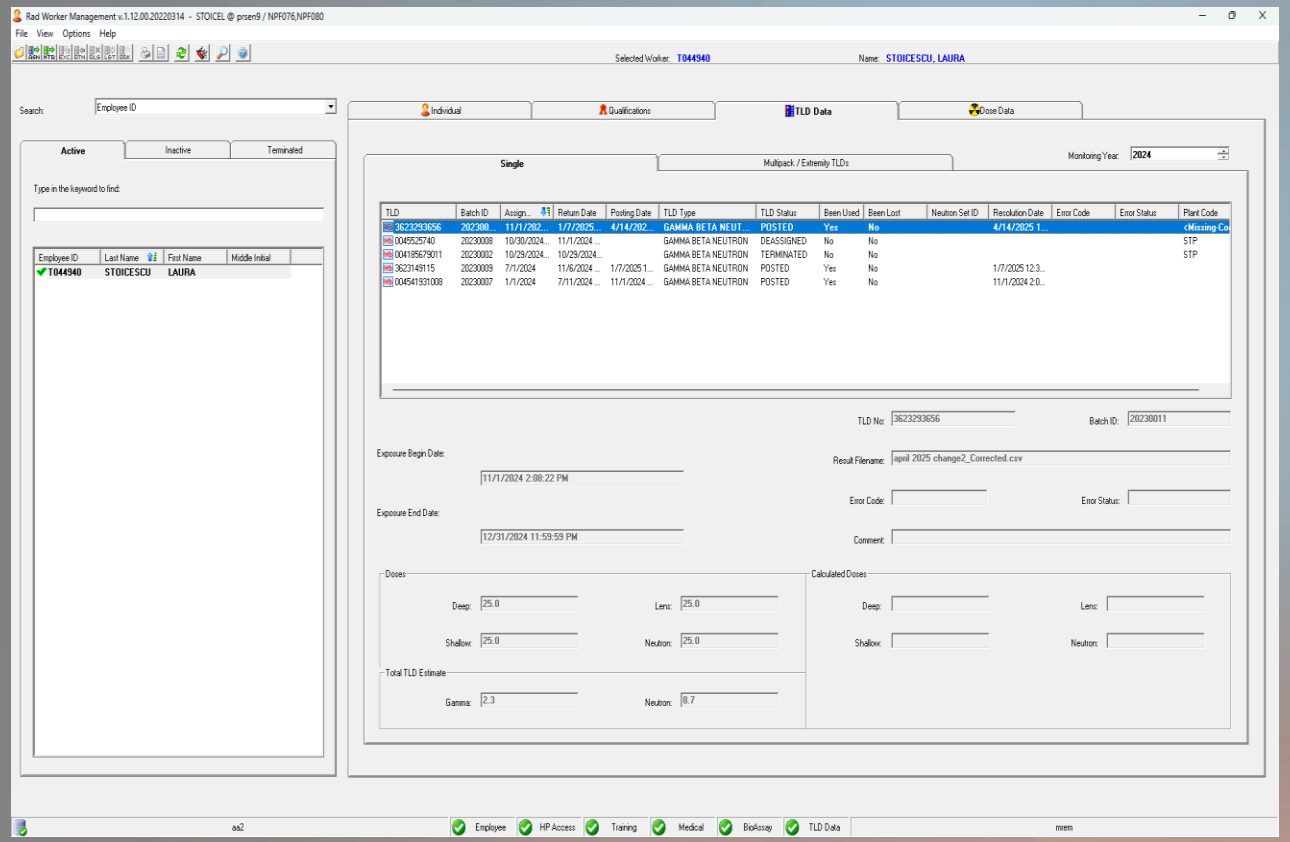
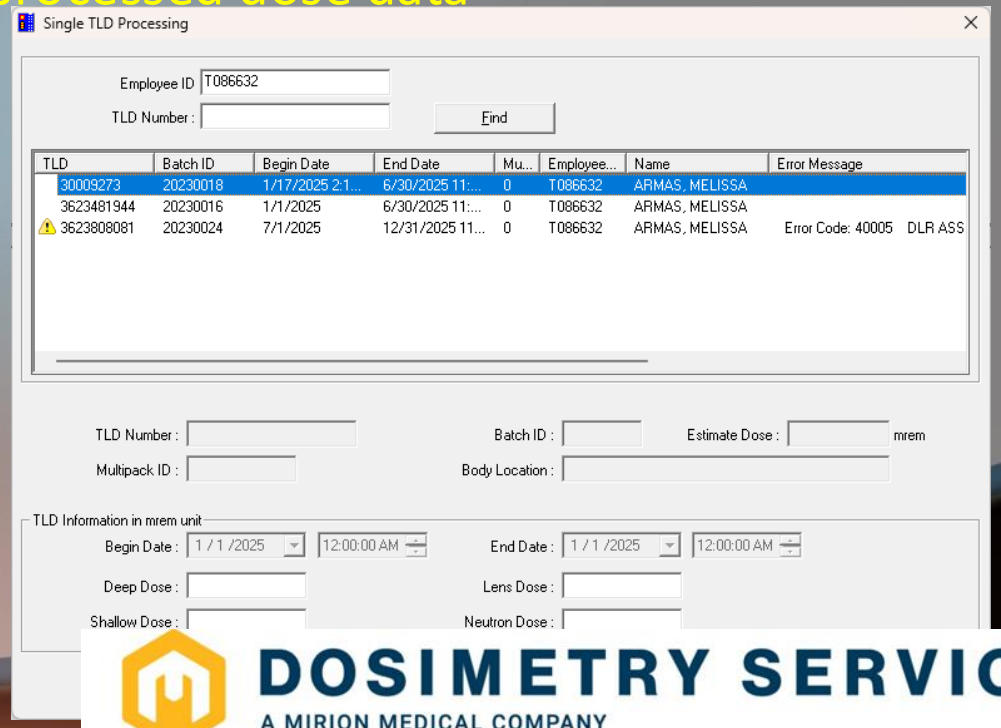
Future work of Dosimetry and Application Programming Interface (API)



- We need to transfer data automatically to database for issue and collection of dosimeters.
- Facilitate data communication between dosimetry vendor and client of processed dose data



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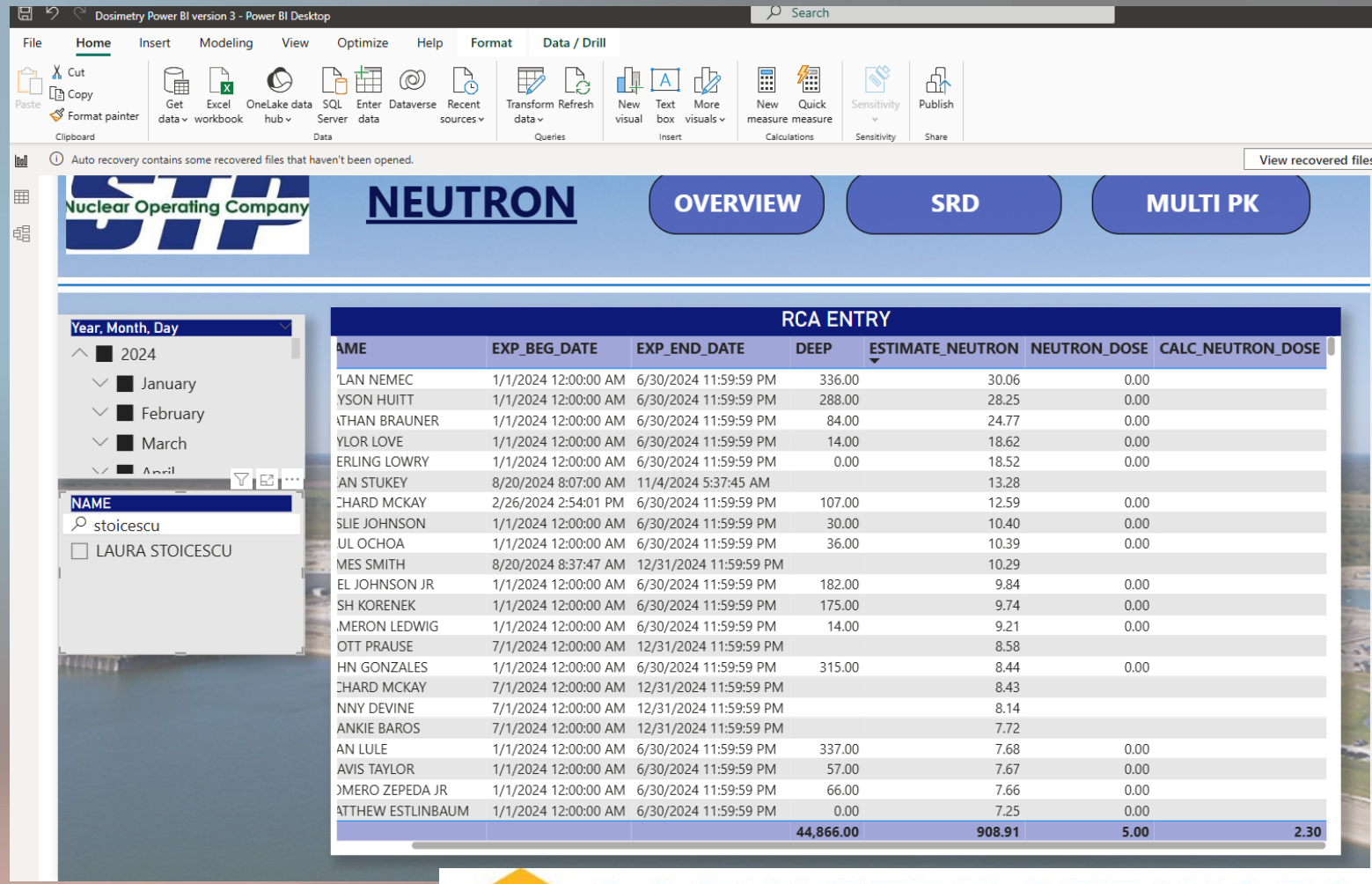
API, Power BI, and AMP+ Automatically Transfer Data

- Imagine getting processing results upon the completion of a job
- No shipping back dosimeters, inventory is late because it's on site
- No more change out periods, just a continuous similar to DMC 3000
- Reduced inventory to accommodate quick turnarounds
- Track and trend dose on a daily basis for passive and active
- Dose investigations can be reduced



AME	EXP_BEG_DATE	EXP_END_DATE	DEEP	ESTIMATE_NEUTRON	NEUTRON_DOSE	CALC_NEUTRON_DOSE
'LAN NEMEC	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	336.00	30.06	0.00	
YSON HUITT	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	288.00	28.25	0.00	
ATHAN BRAUNER	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	84.00	24.77	0.00	
YLOR LOVE	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	14.00	18.62	0.00	
ERLING LOWRY	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	0.00	18.52	0.00	
AN STUKEY	8/20/2024 8:07:00 AM	11/4/2024 5:37:45 AM		13.28		
CHARD MCKAY	2/26/2024 2:54:01 PM	6/30/2024 11:59:59 PM	107.00	12.59	0.00	
SLIE JOHNSON	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	30.00	10.40	0.00	
UL OCHOA	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	36.00	10.39	0.00	
MES SMITH	8/20/2024 8:37:47 AM	12/31/2024 11:59:59 PM		10.29		
EL JOHNSON JR	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	182.00	9.84	0.00	
SH KORENEK	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	175.00	9.74	0.00	
MERON LEDWIG	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	14.00	9.21	0.00	
OTT PRAUSE	7/1/2024 12:00:00 AM	12/31/2024 11:59:59 PM		8.58		
HN GONZALES	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	315.00	8.44	0.00	
CHARD MCKAY	7/1/2024 12:00:00 AM	12/31/2024 11:59:59 PM		8.43		
NNY DEVINE	7/1/2024 12:00:00 AM	12/31/2024 11:59:59 PM		8.14		
ANKIE BAROS	7/1/2024 12:00:00 AM	12/31/2024 11:59:59 PM		7.72		
AN LULE	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	337.00	7.68	0.00	
AVIS TAYLOR	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	57.00	7.67	0.00	
OMERO ZEPEDA JR	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	66.00	7.66	0.00	
ATTHEW ESTLINBAUM	1/1/2024 12:00:00 AM	6/30/2024 11:59:59 PM	0.00	7.25	0.00	
			44,866.00	908.91	5.00	2.30

Nuclear Operating Company

DOSIMETRY SERVICES
A MIRION MEDICAL COMPANY

Can Instadose be Cheaper than Traditional Dosimetry?

- ALARA dose reporting as dose of record vs DMC 3000
- Reuse of dosimeters over the year to reduce dosimeter number from 5,000/ year to 1,500/year
- Reduction of dose investigations over 6-month period
- Background issues reduced/ eliminated
- Shipping x-ray discrepancies
- Neutron Correction Factors can be dosimeter dependent
- Quicker response to correct issues

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Blind Test Comparison and Industrial Humidity testing

STP blind testing to 100 mrem to Cs-137 irradiator 10/28/24	100 mrem Blind	Units
ID dosimeter	dose (mrem)	
30005513	97	mrem
30006269	97	mrem
30007387	98	mrem
30007071	101	mrem
30006605	97	mrem
30043996	98	mrem
30007077	98	mrem
30007731	97	mrem
30006959	99	mrem
30007500	100	mrem
30064257	98	mrem
30037996	100	mrem
30005532	97	mrem
30006264	100	mrem
30061574	98	mrem
30006172	98	mrem
	98.3125	mrem

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Neutron Correction Factor development Reactor Containment Building, Fuel Handling Building, ISFSI pad

RCB Neutron Correction Factor developed as multiplicative of*0.19

Cask Connecting Channel Neutron Correction Factor as multiplicative of *0.4

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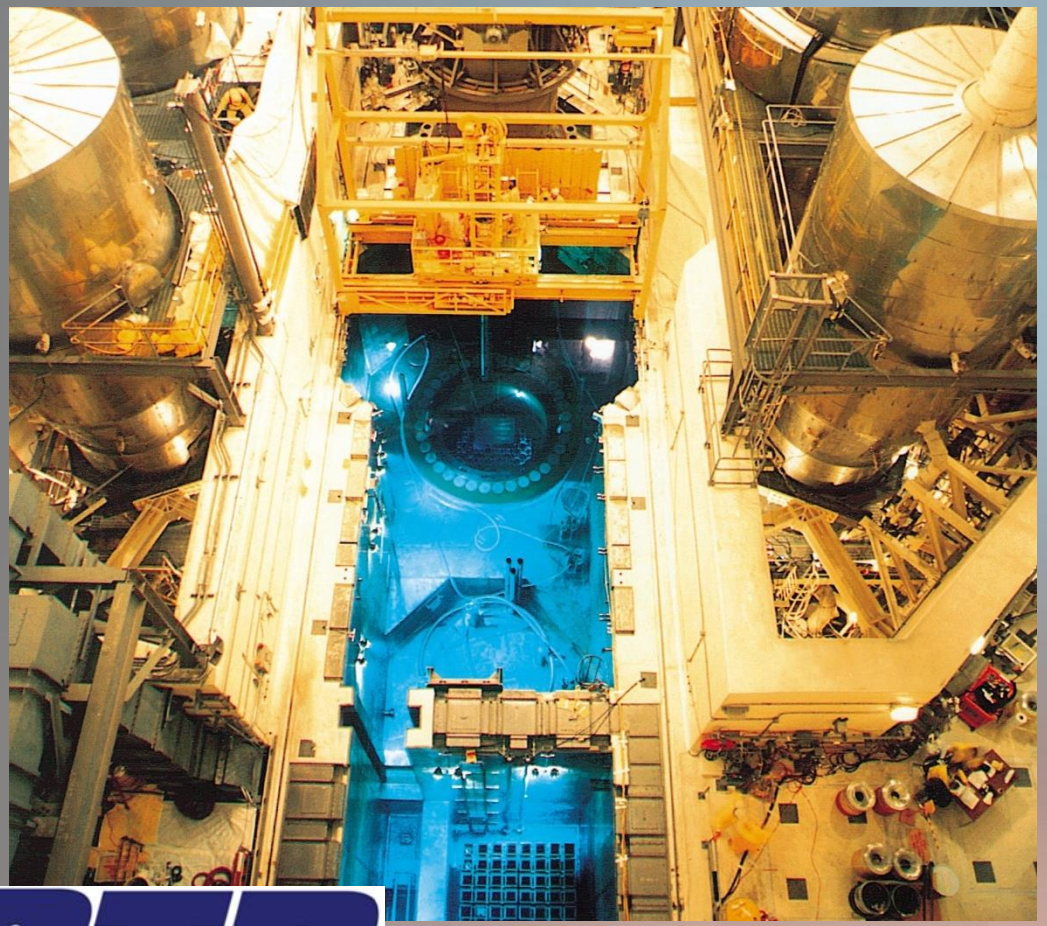
Dosimetry Comparison Tests during outage/non-outage Industrial Work



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Instadose Vue Beta and Neutron

ID Vue Beta
Passed NVLAP categories:
IA, IIA, IIIA, IVAA

Passed testing to IEC 62387 type test standard

ID Vue Neutron
Passed NVLAP categories:
IA, IIA, IIIA, IVAA, VCA

IEC 62387 type testing in process

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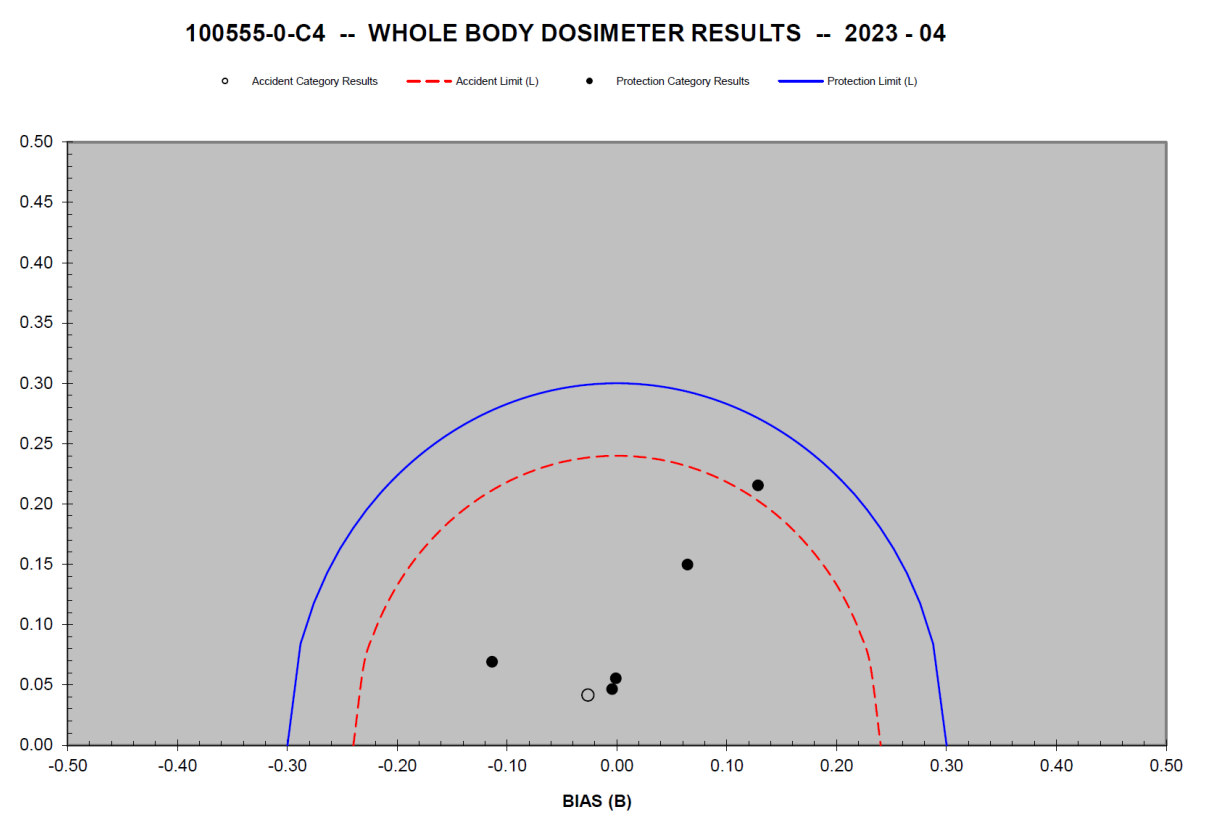
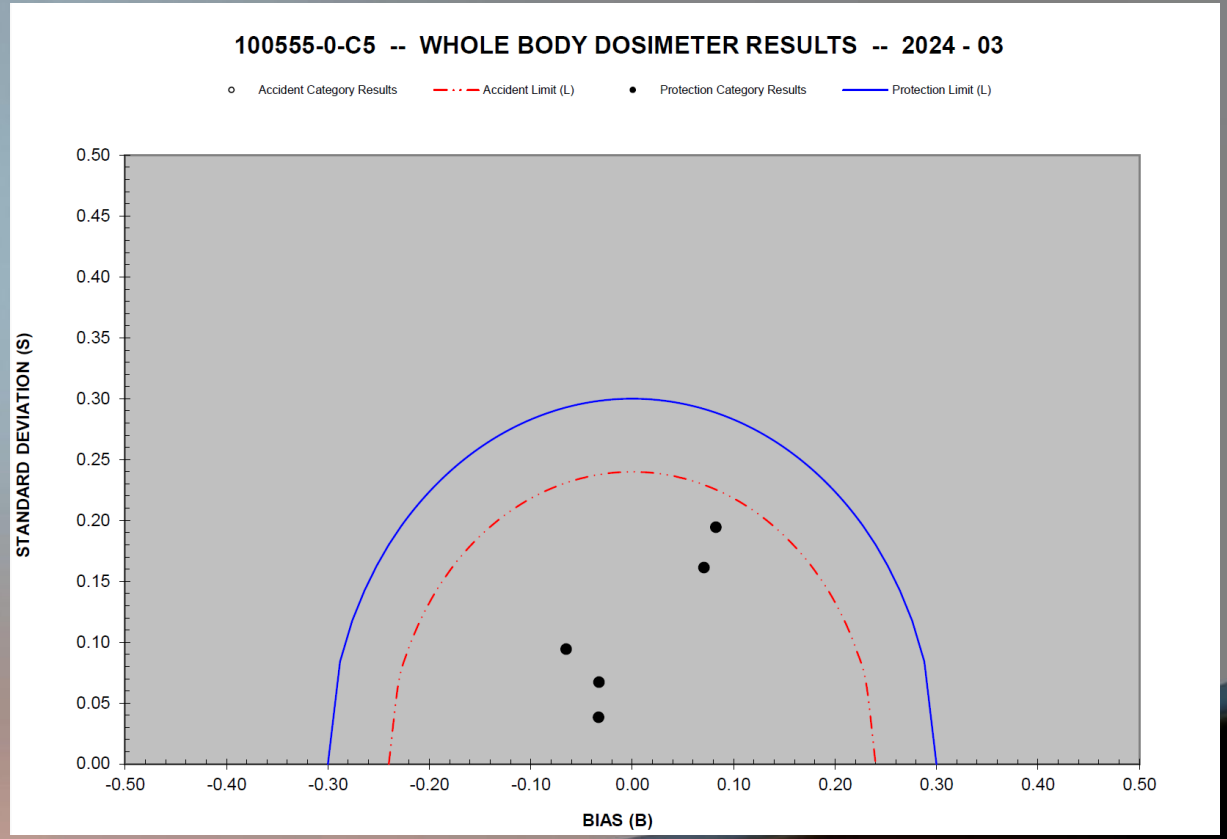
Instadose Vue Neutron and Beta





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Instadose Vue Neutron and Beta – Eurados 2024 results

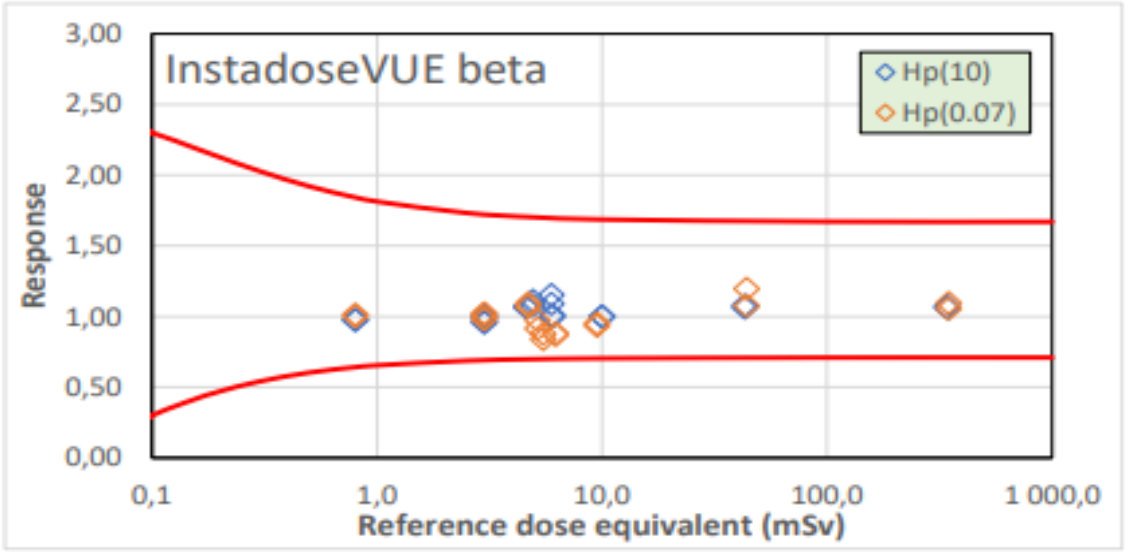

Figure 3B:
Response as a function of reference dose equivalent (InstadoseVUE beta). The solid lines show the uncertainty limits according to the ISO 14146 standard [3].

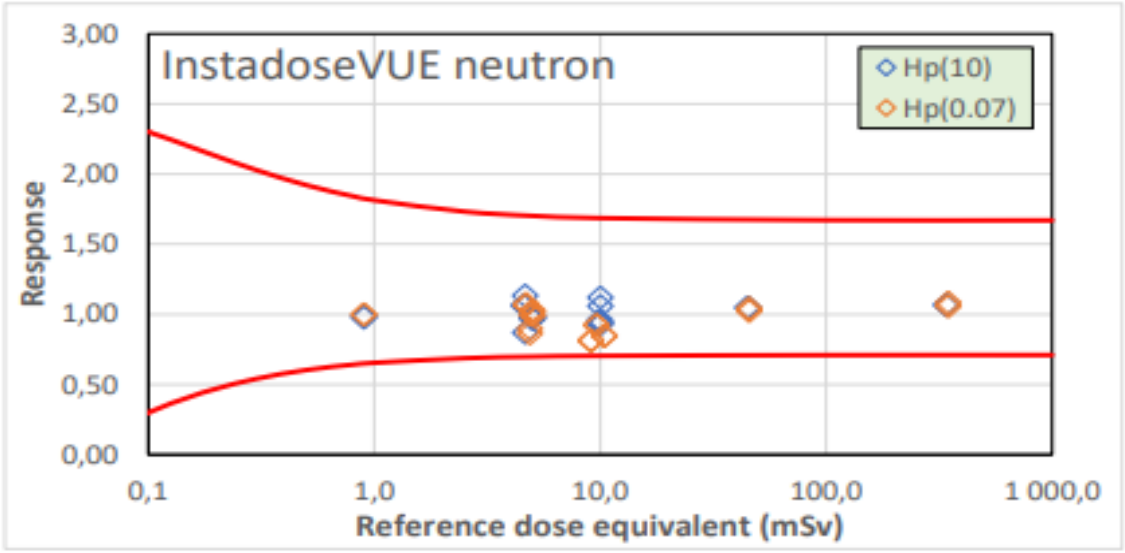

Figure 3C:
Response as a function of reference dose equivalent (InstadoseVUE neutron). The solid lines show the uncertainty limits according to the ISO 14146 standard [3].

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EPRI Dosimetry Study and MCNP Comparisons

- EPRI conducted a Dosimetry Twin study onsite at STP as the pilot plant on March 30-April 4, 2025
- NCF development for Instadose
- MCNP calculations for photon/neutron
- Camera set on workers to develop continuous

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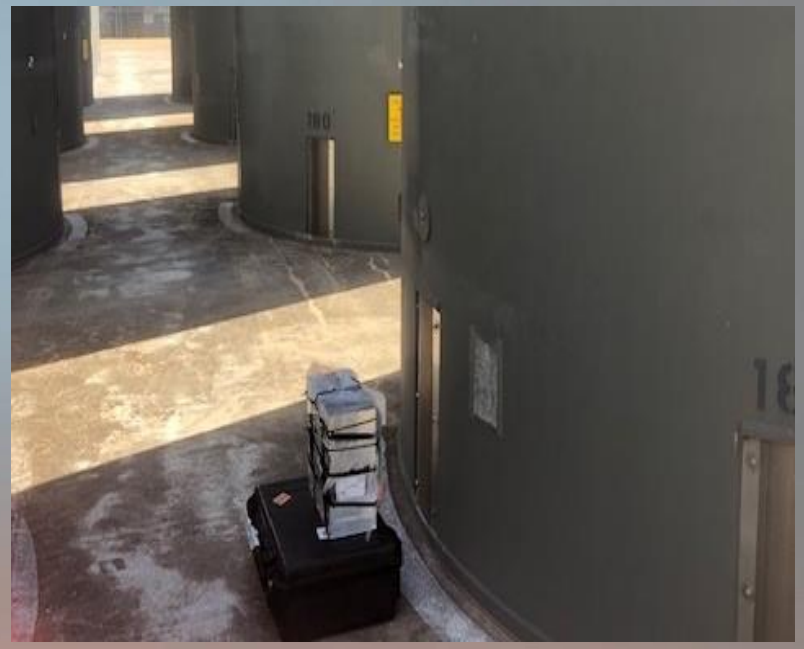
Independent Spent Fuel Storage Installation (ISFSI) Project with ID Vue

Comparison between three dosimetry

ISFSI neutron correction factor highest



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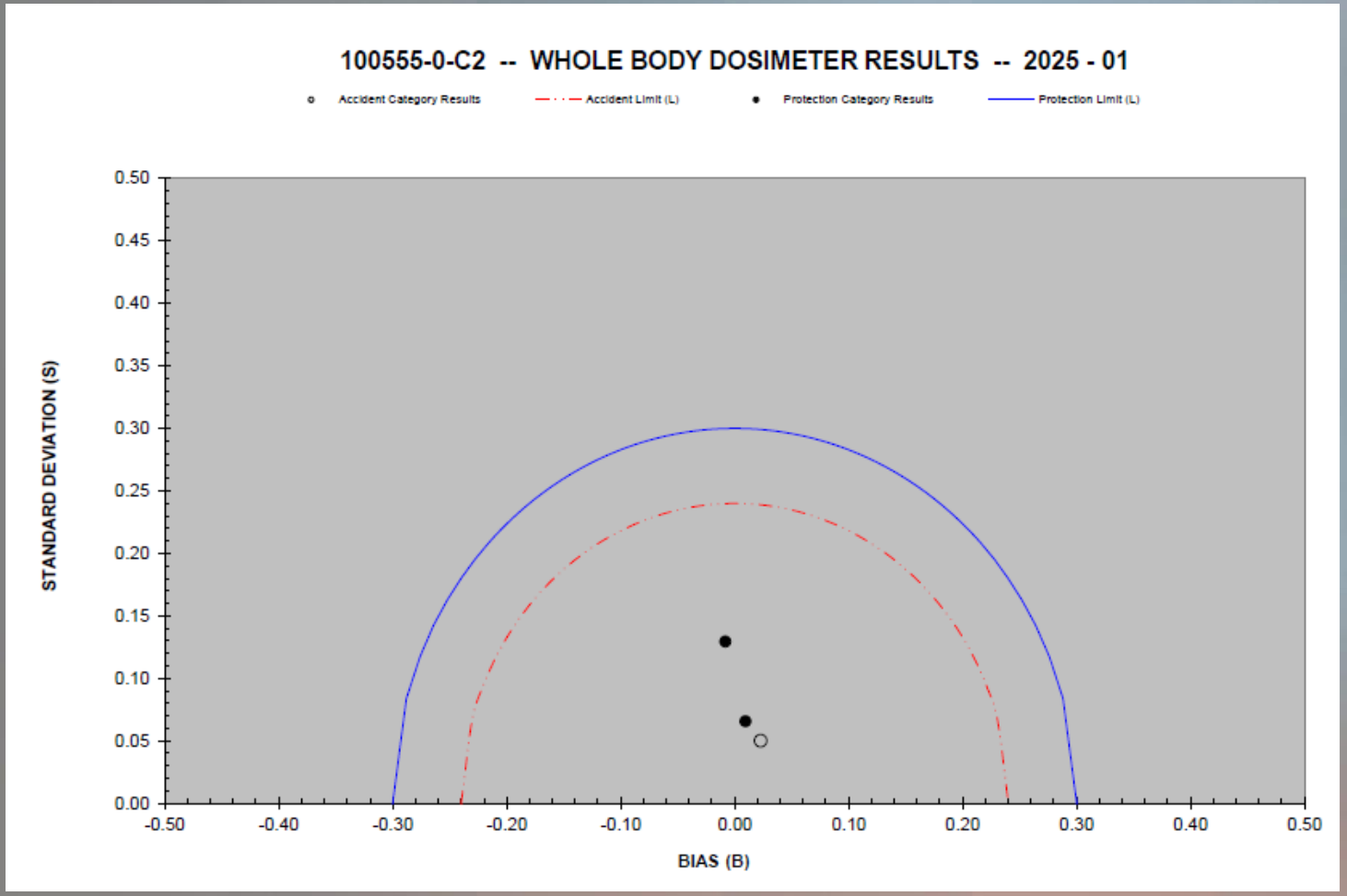
Initial NVLAP Results – Instadose®VUE photon



C2 – Whole Body		
Pass/Fail	Category	Category Description
Pass	IA	Accidents Photons, General
Pass	IIA	Photons/Photon Mixtures, General ($\bar{E} \geq 20$ keV; ⊥ if ≤ 70 keV)

Categories tested: 1A and 2A

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Eurados 2024 Results – Instadose®VUE

Passed testing to IEC 62387 type test standard

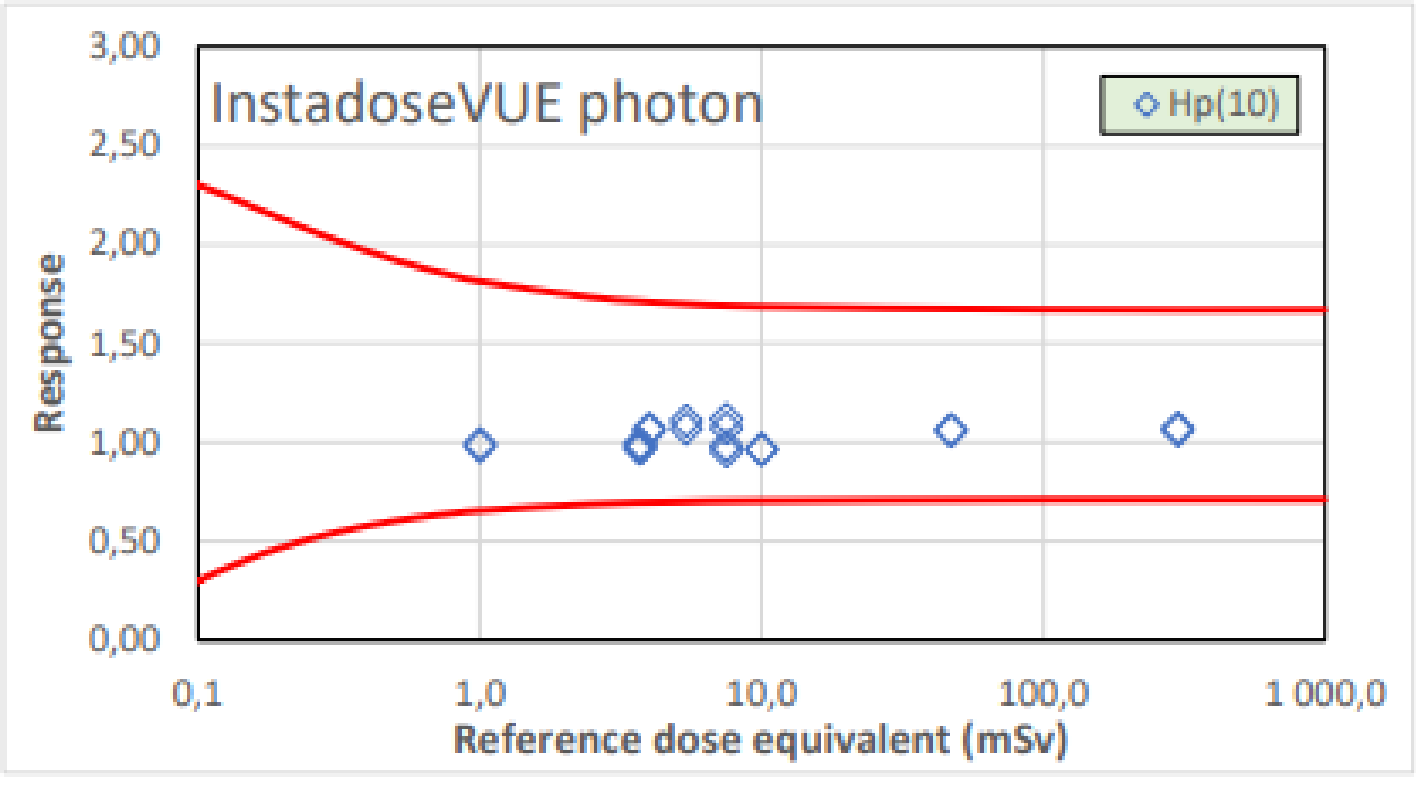

Figure 3A:
Response as a function of reference dose equivalent (InstadoseVUE photon). The solid lines show the uncertainty limits according to the ISO 14146 standard [3].

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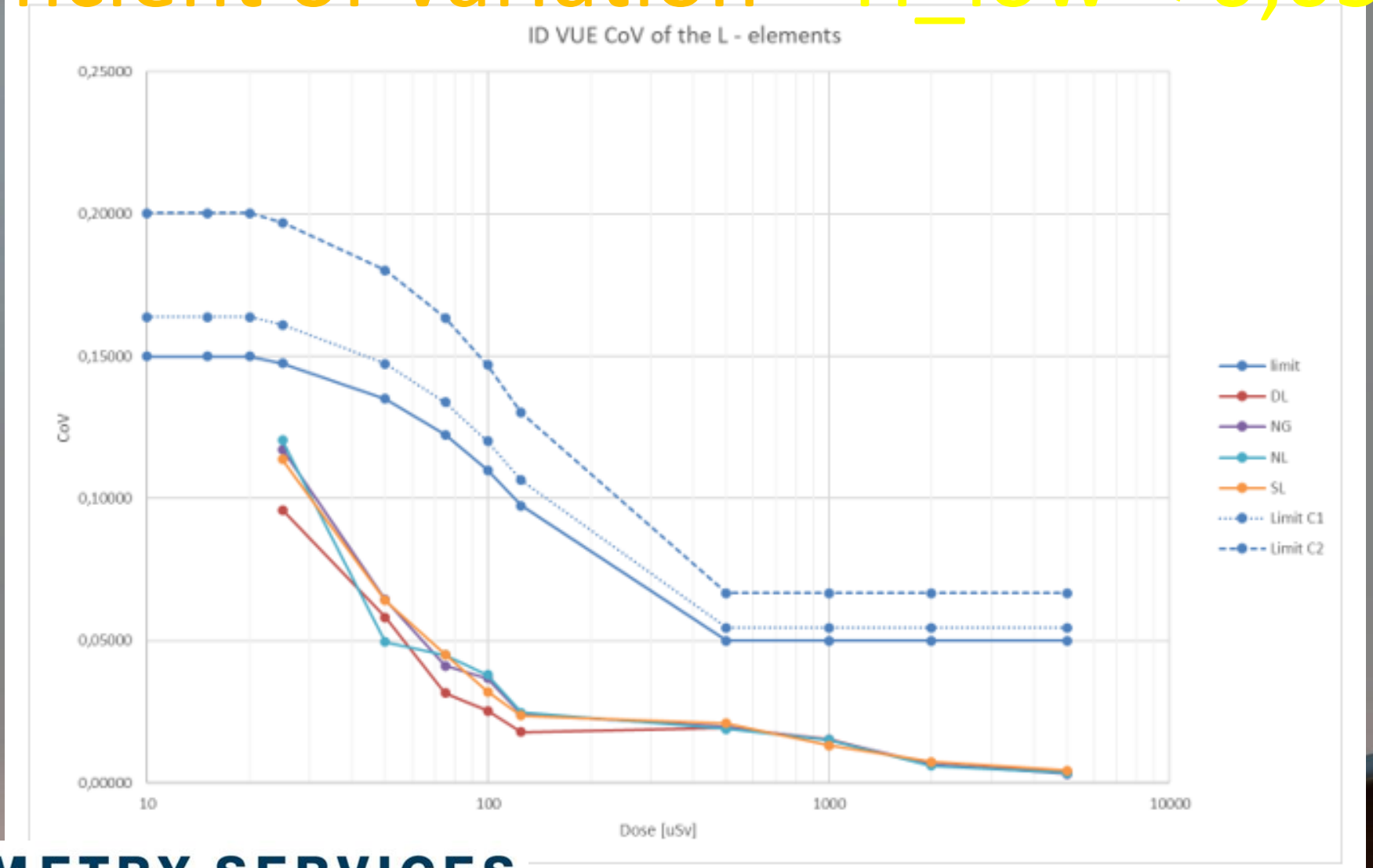
Type test results Instadose VUE photon

Coefficient of Variation H_low < 0,05 mSv



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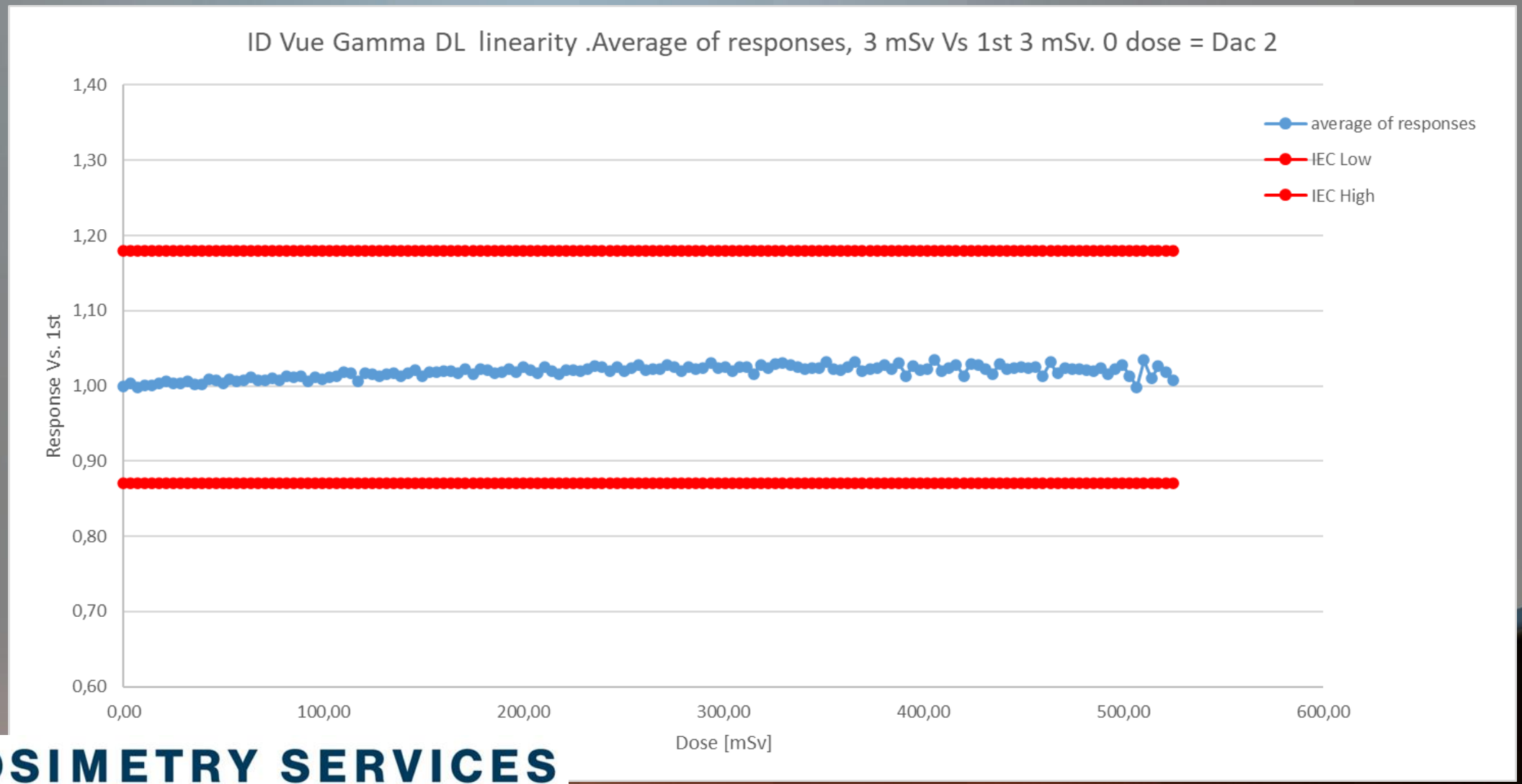
Type test results Instadose VUE photon

Linearity: LowDose channel

Extended range LowDose channel



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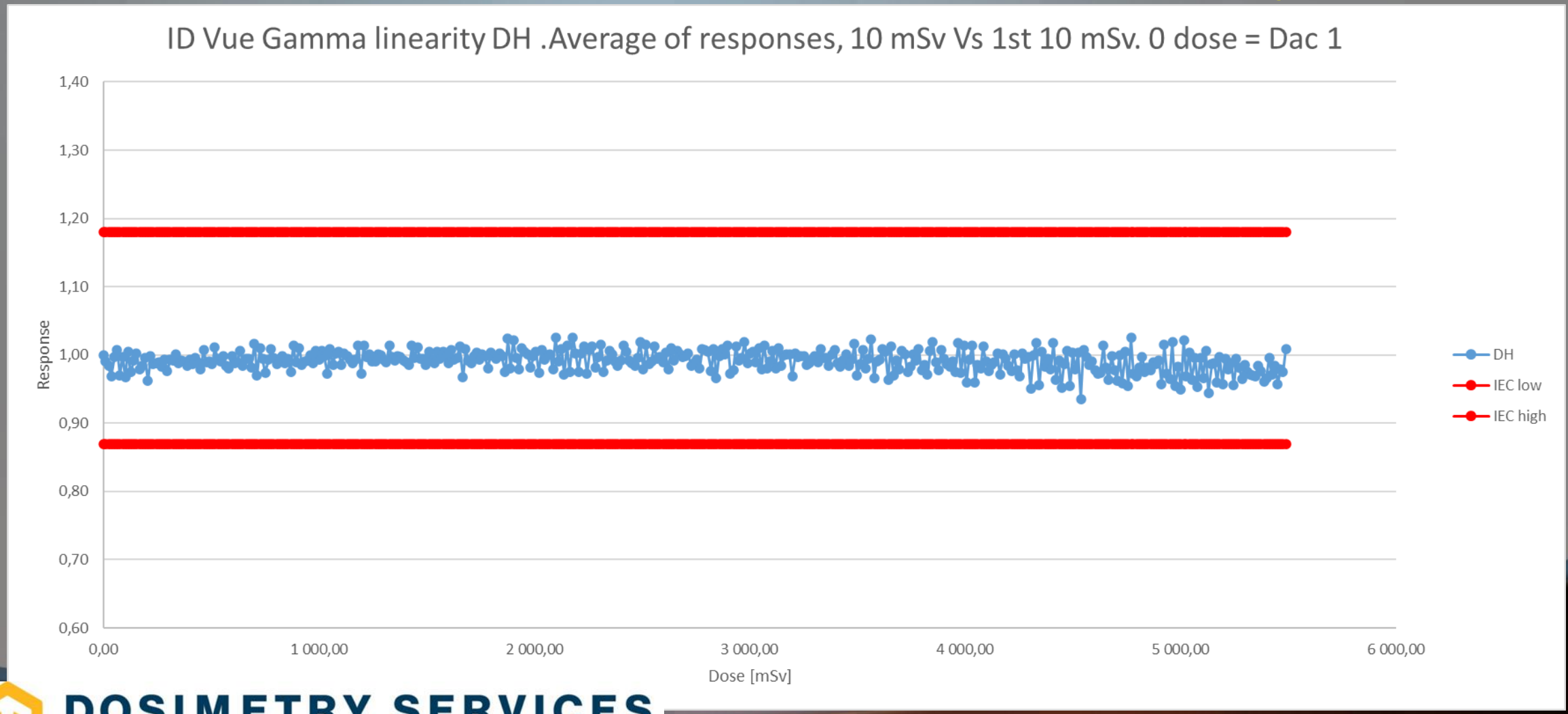
Type test results Instadose VUE photon

Linearity: high dose channel

Extended range
HighDose channel



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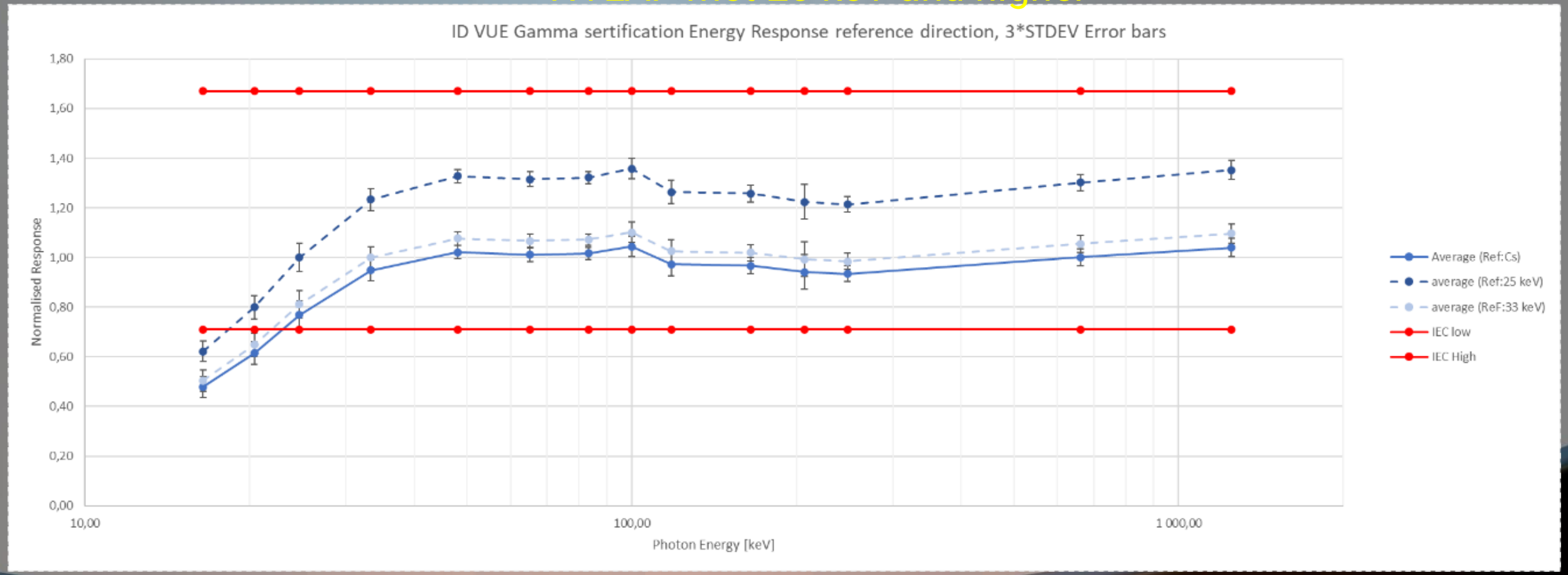
Type test results Instadose VUE photon

Energy response

Much better energy response
IEC met from 25 keV and up (+/- 60o angles)
NVLAP met 20 keV and higher



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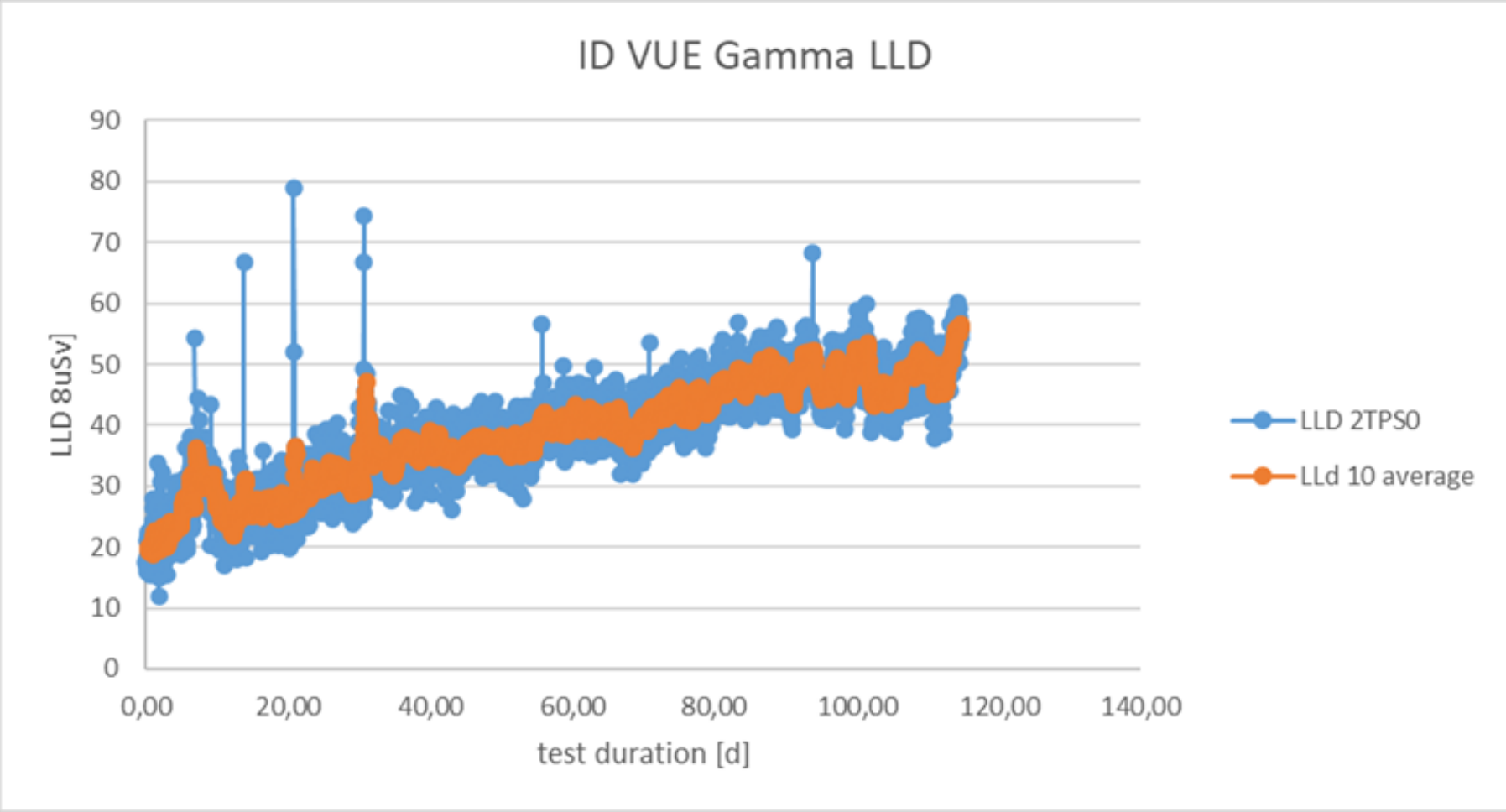
Type test results Instadose VUE photon

Dose build-up, fading and self-irradiation (LLD)



ANSI method for LLD:
LLD@90d = 44 µSv

More data analysis to be made to test for IEC H_low = 0,05 mSv

Established MRD of 0.05 mSv while more testing is being conducted

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Mirion and BeOSL using OSL technology

DOSImetrics

MIRION TECHNOLOGIES

DOSIMETRY SERVICES
A MIRION MEDICAL COMPANY

BeOSL Dosimeter (2 and 4 Elements available)

- 2 - 4 identical BeO detectors
  Size: 58 mm × 23 mm × 8,7 mm

- Individually calibrated
- Dosimeter ID: unique, via barcode and human readable number
- $H_P(10)$ and $H_P(0.07)$
- "No" algorithm (linear
- combination only)
- Symmetric
- 100% sealed agains
- Customized imprint

Tissue-Equivalency

Human (soft) tissue: Z_{EFF} ~ 7,6

BeO: Z_{EFF} = 7,2
LiF, e.g. TLD-100: Z_{EFF} = 8,2
Al_2O_3: Z_{EFF} = 11,7
"The effective atomic number of Al_2O_3 :C causes the material to over-respond to low energy X-rays by a factor of up to ~3,5" (Bos, 2001)

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Emergency Plan Kits Personnel Badges ID or Environmental BeOSL

- Photon and Beta BeOSL
- OSL technology-reread 3X
- NVLAP accredited
- Most near tissue equivalent OSL
- 10 mrem – 1000 rad range
- 12 keV – 6 MeV photon
- 0.565 MeV – 5 MeV Beta
- NO FADE over 12 months

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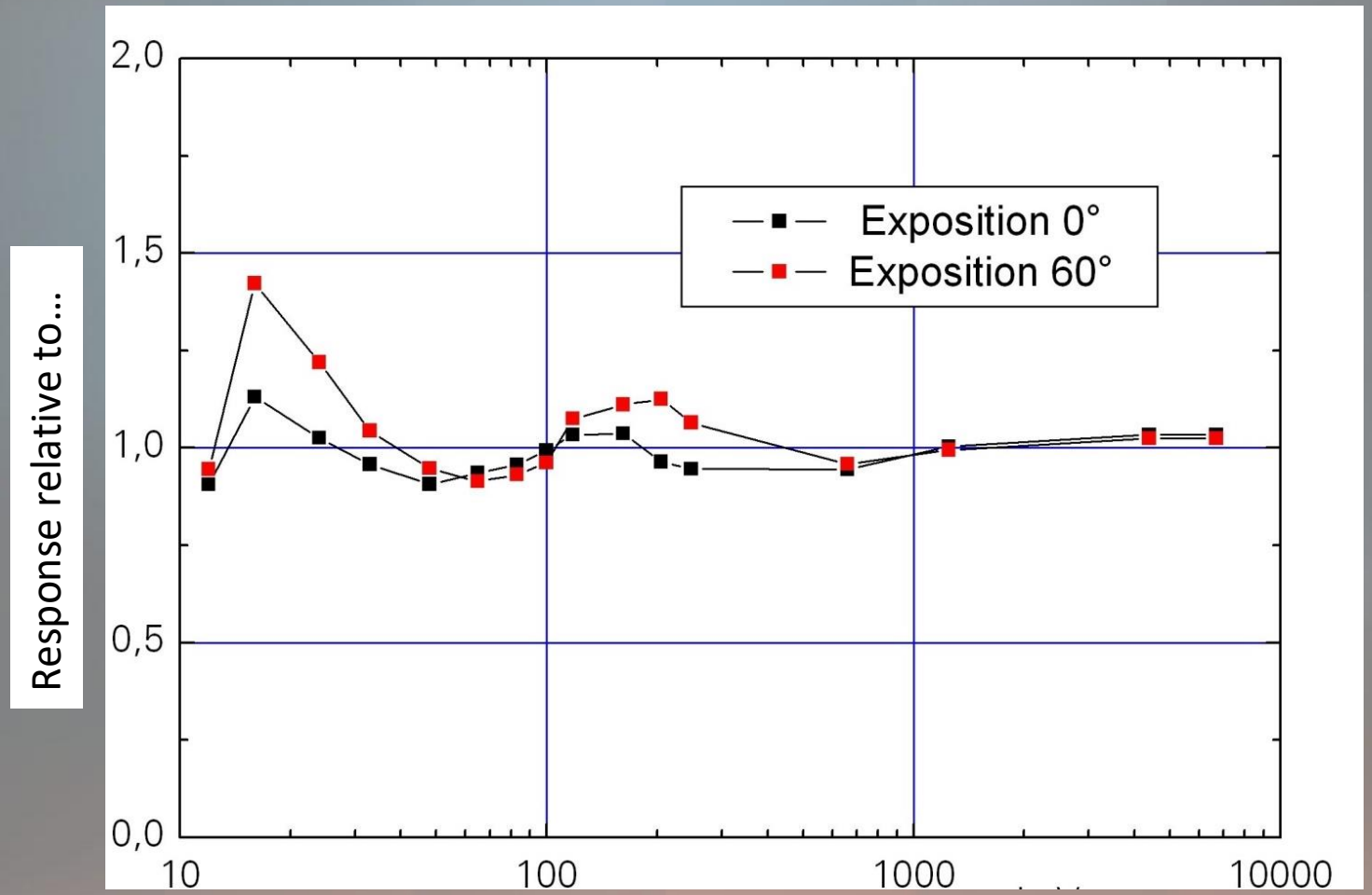
BeOSL 4-Element Dosimeter



BeOSL dosimeters have obtained accreditations worldwide:

- NVLAP (US),
- HSE (UK),
- PTB (Germany),
- and others

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Reader/Eraser Combination – from Manual to Automation

DOSImetrics

BE SMART. BE SAFE. BeOSL

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ANSI N14.37 Environmental BeOSL

Meeting the standard is the best that can be done to have exceptional ENV dosimeters.

Highlights from the standard are:

- Section 5
  - Uniformity and Reproducibility
  - Photon Energy Dependence
  - Linearity and Precision
  - Laboratory-Based Minimum Quantifiable Dose
  - Dosimeter Orientation in Radiation Field
  - Neutron Radiation Influence
  - Beta Radiation Influence
- Section 6
  - Light Test
  - Condensing Moisture Test
  - Low-Temperature Test
  - High-Temperature Test

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South Texas Project Panasonic vs BeOSL Environmental data

Station ID	Distance	2022 Quarterly Baseline (mrem)	2023 Quarterly Baseline* (mrem)	Bq + MDDq (mrem)	2023 Normalized Net Dose Mq (mrem per Std Qtr) Qtr 1	Qtr 2	Qtr 3	Qtr 4	2023 Quarterly Facility Dose, Fq (mrem) Qtr 1	Qtr 2	Qtr 3	Qtr 4	2023 Annual Baseline Ba (mrem)	2023 Ba + MDDa (mrem)	2023 Normalized Annual Dose Ma (mrem per year)
1	1 mile N	12.5	14.0	19.0	14.0	14.0	14.0	15.0	ND	ND	ND	ND	56.2	66.2	57.0
2	1 mile NNE	12.9	14.4	19.4	13.0	15.0	16.0		ND	ND	ND	ND	57.6	67.6	58.7
3	1 mile NE	13.5	15.0	20.0	14.0	14.0	16.0	14.0	ND	ND	ND	ND	59.8	69.8	58.0
4	1 mile ENE	13.1	14.6	19.6	15.0	15.0	15.0	15.0	ND	ND	ND	ND	58.4	68.4	60.0
5	1 mile E	13.4	14.9	19.9	15.0	14.0	15.0	14.0	ND	ND	ND	ND	59.5	69.5	58.0
6	3.5 miles ESE	14.1	15.6	20.6	15.0	15.0	16.0	15.0	ND	ND	ND	ND	62.5	72.5	61.0
7	3.5 miles SE	11.3	12.8	17.8	13.0	13.0	13.0	12.0	ND	ND	ND	ND	51.2	61.2	51.0
8	0.25 mile SSE	10.5	12.0	17.0	12.0	12.0	12.0	11.0	ND	ND	ND	ND	48.2	58.2	47.0
9	0.25 mile S	13.6	15.1	20.1	14.0	16.0	13.0	14.0	ND	ND	ND	ND	60.5	70.5	57.0
10	0.25 mile SSW	10.7	12.2	17.2	12.0	11.0	13.0	11.0	ND	ND	ND	ND	48.8	58.8	47.0
11	0.5 mile SW	11.1	12.6	17.6	11.0	11.0	12.0	12.0	ND	ND	ND	ND	50.4	60.4	46.0
12	1.5 mile WSW	12.6	14.1	19.1	14.0	14.0	13.0	15.0	ND	ND	ND	ND	56.4	66.4	56.0
13	1.5 mile W	15.9	17.4	22.4	16.0	18.0	18.0	16.0	ND	ND	ND	ND	69.6	79.6	68.0
14	1.5 mile WNW	14.9	16.4	21.4	15.0	18.0	19.0	15.0	ND	ND	ND	ND	65.6	75.6	67.0
15	1 mile NW	13.0	14.5	19.5	14.0	15.0	13.0	14.0	ND	ND	ND	ND	58.0	68.0	56.0
16	1 mile NNW	13.0	14.5	19.5	14.0	15.0	15.0	14.0	ND	ND	ND	ND	58.0	68.0	58.0
17	6.5 miles N	13.1	14.6	19.6	13.0	16.0	15.0	13.0	ND	ND	ND	ND	58.5	68.5	57.0
18	5.5 miles NNE	13.0	14.5	19.5	14.0	13.0	15.0	14.0	ND	ND	ND	ND	58.0	68.0	56.0
19	5.5 miles NE	12.9	14.4	19.4	14.0	14.0	16.0	13.0	ND	ND	ND	ND	57.6	67.6	57.0
20	5 miles ENE	14.6	16.1	21.1	17.0	16.0	16.0	15.0	ND	ND	ND	ND	64.5	74.5	64.0
21	5 miles E	13.2	14.7	19.7	14.0	14.0	15.0	14.0	ND	ND	ND	ND	58.6	68.6	57.0
22	7 miles E	12.6	14.1	19.1	13.0	15.0	15.0	13.0	ND	ND	ND	ND	56.5	66.5	56.0
23	16 miles ENE	14.7	16.2	21.2	17.0	16.0	18.0	16.0	ND	ND	ND	ND	64.8	74.8	67.0
24	4 miles SSE	11.0	12.5	17.5	12.0	11.0	12.0	12.0	ND	ND	ND	ND	49.9	59.9	47.0
25	4 miles S	11.5	13.0	18.0	13.0	12.0	13.0	12.0	ND	ND	ND	ND	52.2	62.2	50.0
26	4 miles SSW	11.3	12.8	17.8	12.0	12.0	12.0	14.0	ND	ND	ND	ND	51.0	61.0	50.0
27	2.5 miles SW	11.8	13.3	18.3	13.0	13.0	12.0	13.0	ND	ND	ND	ND	53.1	63.1	51.0
28	5 miles WSW	13.1	14.6	19.6	15.0	16.0	15.0	15.0	ND	ND	ND	ND	58.4	68.4	61.0
29	4.5 miles W	14.7	16.2	21.2	18.0	18.0	18.0	16.0	ND	ND	ND	ND	64.8	74.8	70.0
30	6 miles WNW	12.1	13.6	18.6	12.0	15.0	13.0	13.0	ND	ND	ND	ND	54.5	64.5	53.0
31	5.5 miles NW	12.2	13.7	18.7	14.0	14.0	12.0	13.0	ND	ND	ND	ND	54.9	64.9	53.0
32	3.5 miles NNW	12.4	13.9	18.9	13.0	14.0	13.0	13.0	ND	ND	ND	ND	55.7	65.7	53.0
33	14 miles NNE	13.1	14.6	19.6	16.0	14.0	13.0	13.0	ND	ND	ND	ND	58.3	68.3	56.0
34	7.5 miles ENE	12.3	13.8	18.8	13.0	15.0	14.0	13.0	ND	ND	ND	ND	55.2	65.2	55.0
35	8.5 miles SSE	12.3	13.8	18.8	14.0	14.0	14.0	14.0	ND	ND	ND	ND	55.0	65.0	56.0
36	9 miles WSW	12.3	13.8	18.8	13.0	14.0	13.0	14.0	ND	ND	ND	ND	55.3	65.3	54.0
37	10 miles WSW	12.4	13.9	18.9	13.0	14.0	13.0	13.0	ND	ND	ND	ND	55.7	65.7	53.0
38	10.5 miles NW	11.2	12.7	17.7	11.0	12.0	12.0	13.0	ND	ND	ND	ND	50.8	60.8	48.0
39	9 miles NW	14.3	15.8	20.8	18.0	17.0	15.0	17.0	ND	ND	ND	ND	63.2	73.2	67.0
40	4.5 miles SW	12.6	14.1	19.1	15.0	15.0	14.0	15.0	ND	ND	ND	ND	56.3	66.3	59.0
41	2.0 miles ESE	11.5	13.0	18.0	13.0	13.0	13.0	13.0	ND	ND	ND	ND	51.9	61.9	52.0
43	4.5 miles SE	13.3	14.8	19.8	14.0	16.0	15.0	13.0	ND	ND	ND	ND	59.0	69.0	58.0

MDDq at 5 mrem, MDDa at 10 mrem

es because of new dosimeter use In 2023 (overall average was acros

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Challenges and Future Task Force Work

- Development of Neutron Correction Factors
- Foreign Material Exclusion Clips
- API finalization for Instadose and Legacy
- Change Management process for training and procedures
- Determination of integration and inventory of Instadose and Legacy
- Placement of Instalinks at site and coordination with IT resources
- Badge racks
- Continued work with American Nuclear Insurers (ANI) and Nuclear Regulatory commission (US NRC) with help from Nuclear Energy Instutite (NEI)

- If you are interested in testing out Instadose to see how it will work for you, start with a Kit of 5 dosimeters and a Instalink base

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STP Nuclear Operating Company

Thank you for your time!

Kip Bennett & Laura Stoicescu, CHP

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Kbennett@mirion.com

Lstoicescu@stpegs.com

Dosimetrics Production - Robotic Table

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