NRC FORM 7
(12-01-2025)
10 CFR 110

U. S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR NRC EXPORT OR IMPORT LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S)

(See Instructions on Pages 4 and 5)

APPROVED BY OMB: NO. 3150-0027 EXPIRES: 12/31/2025

PART A. FOR NRC USE ONLY	[X] Public OR [ ] Non-Public	Date Received
		1/5/2026
License Number XSNM3858	Docket Number 11006656	Adams Accession Number

PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS, OR CONSENT REQUESTS

(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

1. Name and Address of Applicant/Licensee	1a. Name of Applicant's Contact	1b. Applicant's Reference Number
Mirion Technologies (IST) Corporation 300 IST Center 315 Daniel Zenker Drive Horseheads, NY 14845	Eric P. Brand	EPB0014
	1c. Office Telephone Number (607)-562-4414	1d. Office Facsimile Telephone Number (607)-562-4482
	1e. Applicant's Email Address ebrand@mirion.com	

2. Type of Action Requested

[✓] Export (Parts B, C, E) [ ] Amendment/Renewal Current License Number:

[ ] Import (Parts B, D, E) [ ] Consent Request (Parts B, C) Current License Number:

3. Contract Number(s)	4. First Shipment Date	5. Last Shipment Date	6. Proposed Expiration Date
C83-ACH72D249137	1/31/2026	12/31/2026	12/31/2027

PART C. TO BE COMPLETED FOR EXPORT LICENSES, AMENDMENTS, OR RENEWALS

(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

7. Name(s)/Address(es) of U. S. Suppliers and/or other U. S. Parties to the Export	8. Name(s)/Address(es) of Intermediate Foreign Consignee(s)	9. Name(s)/Address(es) of Ultimate Foreign Consignee(s)
		NRG Petten Westerduinweg 3, 1755 LE PETTEN P.O. Box 25, 1755 ZG PETTEN THE NETHERLANDS
7a. Function(s) Performed/Service(s) Provided	8a. Intermediate Use(s)	9a. Ultimate End Use(s)
		Flux Monitor, NRG Petten HFR

10. Description of Radioactive Materials, Sealed Sources, Nuclear Facilities, Equipment, or Components; for Nuclear Equipment include Total Dollar Value of Equipment for Export	10a. Maximum Total Volume/ Element WGT (KG), or Total Activity (TBq)	10b. Max Enrichment or WGT%	10c. Max Isotope WGT (KG)
Quantity (2), Wide Range Fission Chamber for measurement of thermal neutron radiation. The radiation detector is used for neutron flux monitoring at NRG Petten HFR. $ USD Each $ USD Total	Each Detector Total Volume 72.26 Cu inches. Each Detector contains 1.81 grams (0.00181 KG) Uranium	93% U235 applied as U308 coating on an internal sealed electrode.	Each Detector 1.68 grams (0.00168 KG) U235

11. Foreign origin or obligations by country and, if known, by percentage of maximum total volume (leave blank for byproduct licenses)

None

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License Number	Docket Number	Adams Accession Number	
XSNM3858	11006656		[X] Public OR [ ] Non-Public

PART D. TO BE COMPLETED FOR IMPORT LICENSES, AMENDMENTS, OR RENEWALS

(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

12. Name(s)/Address(es) of Foreign Suppliers and/or other Foreign Parties to Import	13. Name(s)/Address(es) of Foreign or U. S. Intermediate Consignee(s)	14. Name(s)/Address(es) of Ultimate U. S. Consignee(s)

12a. NRC Export License Number(s) (if applicable)	13a. License Number(s) / Expiration Date(s)	14a. License Number(s) / Expiration Date(s)
	13b. Intermediate Use(s)	14b. Ultimate End Use(s)

15. Description of Radioactive Materials, Sealed Sources, Nuclear Facilities	15a. Maximum Total Volume/ Element WGT (KG), or Total Activity (TBq)	15b. Max Enrichment or WGT%	15c. Max Isotope WGT (KG)

16. Foreign obligations (By country and by Percentage of Maximum Total Volume)

PART E. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS OR CONSENT REQUEST(S)

(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

17. Additional Information provided on pages 3, 4, and/or separate sheets?	17a. Copies of Recipient's Authorizations Provided?
[✓] Yes [ ] No	[ ] Yes [✓] No

18. Certification:

I, the applicant's authorized official, hereby certify that this application is prepared in conformity with Title10, Code of Federal Regulations, and that all information provided is correct to the best of my knowledge.

18a. Print Name and Title of Authorized Official	18b. Signature -- Authorized Official	18c. Date
Eric P. Brand Quality Manager / Export Compliance		12/08/2025

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APPLICATION FOR NRC EXPORT OR IMPORT
LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) (Continued)

License Number	Docket Number	Adams Accession Number	
XSNM3858	11006656		[X] Public **OR** [ ] Non-Public

Additional Information (Reference applicable block numbers from page 1 and/or page 2 for each entry)

Mirion Technologies (IST) Corporation is applying for a NRC Export License to export a quantity of two Wide Range Fission Chambers used for measurement of neutron flux radiation. The radiation detector will be used for neutron flux monitoring at NRG Petten High Flux Reactor (HFR).

The NRG Petten High Flux Reactor (HFR) is an isotopic production research reactor capable of 45 MW (thermal) continuous operation.

The Wide Range Fission Chambers are also referred to as Excore Detectors. The Excore Detectors are positioned in detector wells (stand pipes) placed around the outside of the reactor vessel. The detectors are left in position during reactor operation and are not considered mobile survey instruments.

The equipment falls under 10 CFR 110.8 - Especially designed equipment for a nuclear reactor.
Appendix A) to part 110 paragraph (11) - Other components especially designed for nuclear reactor.

Attached for your reference:

1) Fission Counter Chamber - Dual Range, Mirion Model Number WL-6376A, Product Data Sheet.
(Number of pages =2)

2) End User Statement from NRG Petten, The Netherlands.
(Number of pages = 1)

Mirion Technologies (IST) Corporation requests the pricing information be redacted (box 10) if/when the license application is published for review.

MIRION TECHNOLOGIES

Sensing Systems Division

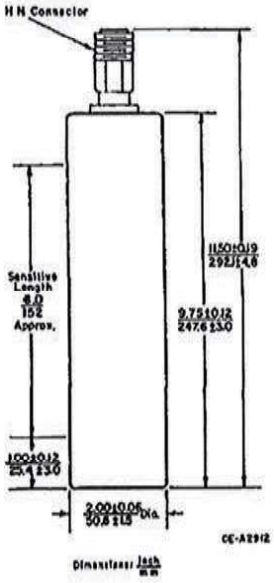
Fission Counter Chamber
Dual-Range

1.4 to 1.4 x 10^5 nv Counter Range
6 x 10^5 to 1.4 x 10^{10} nv Chamber Range
300°F (150°C) Operation
0.7 cps/nv Counter Sensitivity
1.4 x 10^{-13} A/nv Chamber Sensitivity
Meets MIL-S-901 & MIL-STD-167 (Type 1)
Tube Number: WL-6376A

Application

The WL-6276A fission chamber is designed to detect thermal neutrons in the range of 1.4 to 1.4 x 10^5 neutrons/cm2/second when operated as a counter and in the range of 6 x 10^5 to 1.4 x 10^{10} neutrons/cm2/second when operated as a chamber. The detector is extremely rugged in construction, meeting MIL-S-901 for shock and MIL-STD-167 (Type 1) for vibration, and may be operated in any position at temperatures up to 300°F (150°C).

The WL-6376A is constructed of aluminum, with high purity alumina ceramic insulators throughout, including those used in the type HN connector. In typical operation as a fission counter the WL-6276A has a thermal neutron sensitivity of approximately 0.7 counts/neutron/cm^2 throughout a wide range of applied voltage. When connected for service as an ionization chamber, the thermal neutron sensitivity is approximately 1.4 x 10^{-13} amperes/neutron/cm^2/second with a gamma sensitivity of approximately 4.2 x 10^{-11} amperes/R/hour.



Mechanical

Diameter	(50.8 mm)	2.00	Inches
Overall Length	(292 mm)	11.5	Inches
Approximate Sensitive Length	(152m)	6	Inches
Net Weight	(794 grams)	1 75	Pounds
Shipping Weight	(5.4 kg)	12	Pounds

Materials

Outer Case	Aluminum	
Electrodes	Aluminum	
Insulation	Al_2O_3	
Sensitive Material:		
Amount of U^{235} in U_3O_8	>90	%
Thickness	2.0	mg/cm^2
Gas Fill	Ar-N	
Gas Pressure	76	cm-Hg

Impedance

Resistance (minimum) (At Max. Temp.)	10^9	Ohms
Capacitance	150	pF

Maximum Ratings

Voltage between Electrodes		1000	Volts
Temperature	(150°C)	300	°F
External Pressure (Note 1)	(7.0 kg/cm^2)	100	psig
Thermal Neutron Flux		3 x 10^{10}	nv

Typical Operation as a Counter (at approx. 25°C)

Operating Voltage	300	Volts
Operating Voltage Plateau	200-800	Volts
Thermal Neutron Flux Range	1.4 to 1.4 x 10^5	nv
Sensitivity (Note 2)	0.7	cps/nv
Output Pulse Characteristics:		cps/nv
Amplitude (unloaded)	2 x 10^{-4}	Volts
Inherent Rise Time (average)	2 x 10-^{7}	Seconds

Dual-Range
Fission Counter Chamber
Tube Number: WL-6376A

Typical Operation as a Chamber (at approx. 25°C)

Operating Voltage (Note 3)	300-1000	Volts
Thermal Neutron Flux Range (Note 4) 6×10^{1}	to 1.4×10^{10}	Nv
Thermal Neutron Sensitivity	1.4×10^{-13}	A/nv
Gamma Sensitivity	4.2×10^{-11}	A/R/Hr
Alpha Background Current	1.6×10^{-8}	A

Notes

1. The pressurizing atmosphere must be dry and non-corrosive.
2. The sensitivity given is with the alpha background counting rate of the naturally radio active uranium adjusted to 5 counts/second. By varying the pulse height selector on the associated circuitry, or by use of high resolution circuitry, other sensitivities are available.
3. The minimum voltage required for saturation is dependent upon the incident neutron flux level.
4. The lower limit of operating range is determined by an inherent alpha background current.

Retyped 07/13/09

C83- ACH72D249137

NRG PALLAS
Nuclear. For Life.

NRG PALLAS B.V.
Westerduinweg 3, 1755 LE PETTEN
Tel. +31 (0)88 515 4950
www.nrg.eu

Mirion Technologies
Sensing Systems Division
315 Daniel Zenker Drive
300 IST Center
Horseheads, NY 14845
USA

Petten, 31 October 2025

Our reference : 25.326375
Your reference : Job Code No. ACH-72D

Subject : End-User Statement NRG PALLAS

Dear Sir/Madam,

We, NRG PALLAS B.V, Westerduinweg 3, 1755 LE Petten, The Netherlands, certify that the goods, two Type WL-6376A Fission Chambers, will be used for reference measurements in our research reactor HFR in Petten, The Netherlands.

We certify that we are the end user of the fission chambers mentioned above and we undertake not to:

(1) re-export,
(2) sell,
(3) lend to any other person,
(4) deliver to another end user in case of a justified suspicion that they should dispose of them contrary to representations made in this document, or
(5) otherwise dispose of the goods, referred to in this document, outside the country of the importer.

We confirm that the goods, referred to in this document, will not be used for purposes associated with military, chemical, biological or nuclear weapons or missiles capable of delivering such weapons, nor will they be re-sold if we know or suspect that they are intended or likely to be used for such purposes.

R. Nel
Reactor Manager