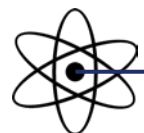


Update

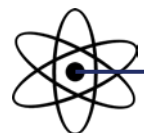
General Atomics' Proprietary Selective Gas Extraction Process at the University of Missouri Research Reactor

February 13, 2017



Presentation Overview

- Project Team – MURR, General Atomics and Nordion
- Overview of the University of Missouri-Columbia Research Reactor
- Operational and Facility Considerations
- Overview of Licensing Approach
- Discussion of Questions in Licensing Approach Letter



Project Team

General Atomics (GA)

Target and Reactor Systems Design and Manufacturing

- Trusted resource of high-technology systems
- Experts in nuclear fuel cycle, including uranium mining and processing
- Experts in reactor design: TRIGA® research reactors in operation around the world for over 50 years

University of Missouri Research Reactor (MURR)

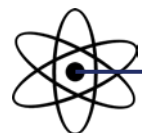
Premium Reactor Operator and Research Center

- 10 megawatt facility; largest university research reactor in the United States
- Operates 52 weeks per year
- 35+ years of successful and innovative radiopharmaceutical R&D and collaborations with industry
- Strong record of regulatory compliance (NRC, FDA, DOT)
- Experts in volume radiochemical processing and international shipping
- Nordion's partner in supply of TheraSphere for over 20 years

Nordion

Premier Isotope Producer and Distributor

- Experts in Mo-99 purification into medical grade product since 1975
- Strong record of regulatory compliance (US FDA, EMEA, Health Canada)
- cGMP/GLP - licensed facility
- Global leading supplier of Mo-99 with extensive marketing, sales and distribution expertise
- Global licensed transport container fleet



MURR®

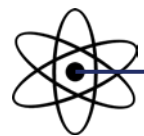
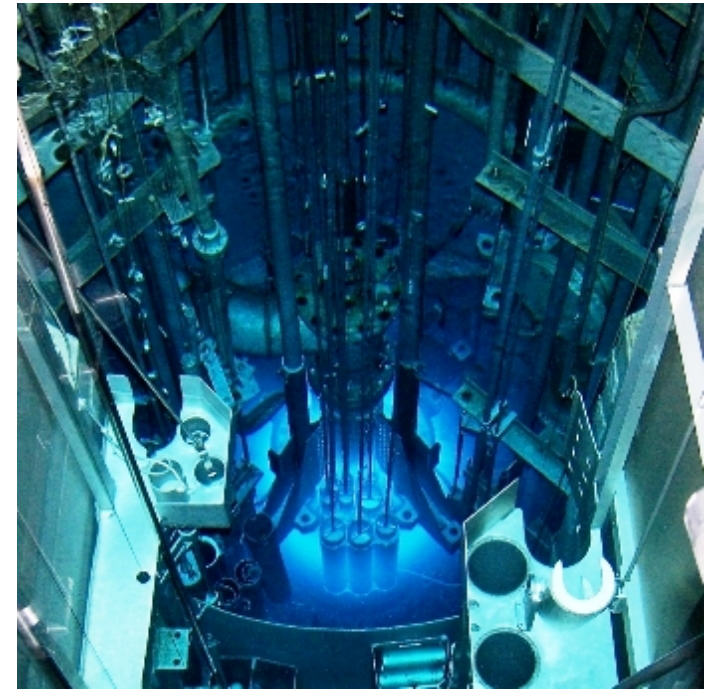
Providing quality nuclear research, education and service to a global community

Nordion/General Atomics/MURR Mo-99 Project

- Nordion has exclusively licensed GA's Selective Gas Extraction (SGE) technology for Mo-99 production.
- Project funding is via NNSA Cooperative Agreement with GA. Nordion is providing the required private investor funding for the implementation at MURR.
- Nordion has executed a 20-year reactor services agreement with MURR.
- MURR will supply a first-stage extract that will be processed and purified at existing cGMP Nordion facilities.
- Mo-99 supplied by SGE technology will work seamlessly in all existing Tc-99m generators.



University of Missouri-Columbia Research Reactor



MURR®

Providing quality nuclear research, education and service to a global community

MURR Facility Overview

Location: On the University of Missouri main campus in Columbia, Missouri, USA (125 miles West of St Louis).

History:

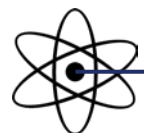
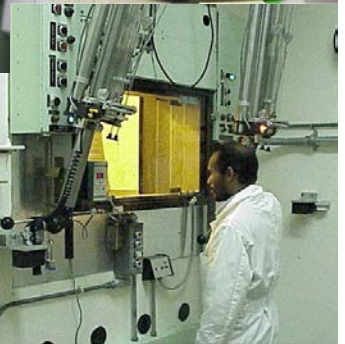
- First critical on October 13, 1966 (Licensed at 5 MW).
- Upgraded and licensed at 10 MW in 1974.
- Started ≥ 150 hours/week operation in September 1977.
- In 2006, became actively involved in the RERTR program to convert the reactor from HEU to LEU fuel.
- January 4, 2017, MURR relicensed for an additional 20 years of operation.

Purpose: Multi-disciplinary research and education facility also providing a broad range of analytical and irradiation services to the research community and the commercial sector.



MURR Facility Overview

- MURR operates 24 hours a day, seven days a week, 52 weeks a year
- 180 full time-time employees
- Each and every week MURR supplies the active ingredients for FDA-approved Quadramet[®] and TheraSpheres[®]



MURR[®]

Providing quality nuclear research, education and service to a global community

Improving the Quality of Life

Distinct Subcultures *working together under the same roof*



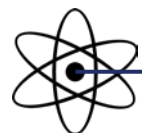
MURR®

Providing quality nuclear research, education and service to a global community

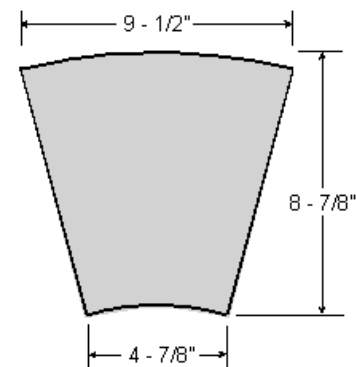
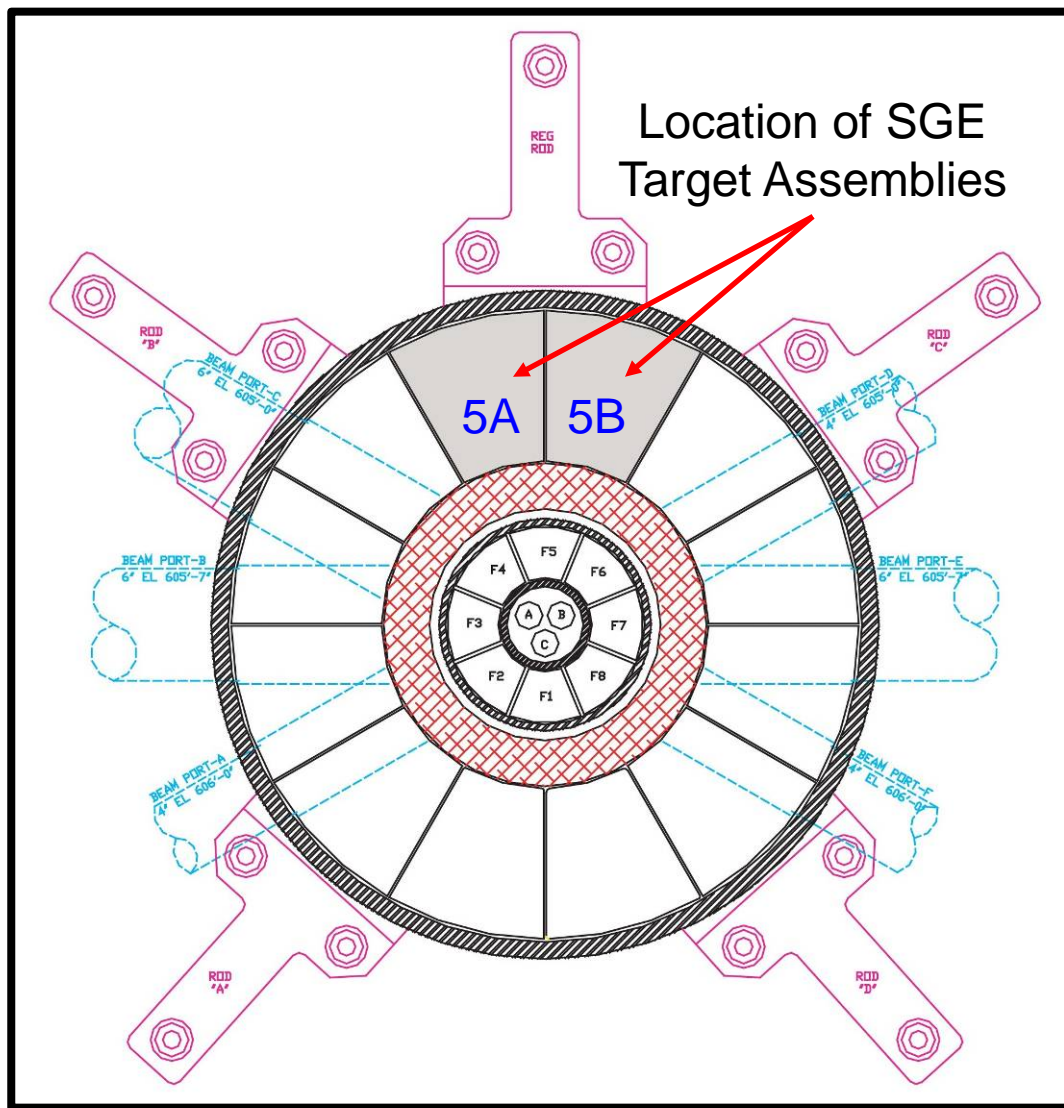
Key Reactor Parameters

MURR® is a pressurized, reflected, heterogeneous, open pool-type, which is light-water moderated and cooled:

- Maximum power – 10 MW_{th}
- Peak flux in center test hole – 6.0E14 n/cm²-s
- Core – 8 fuel assemblies (775 grams of U-235/assembly)
- Control blades – 5 total: 4 BORAL® shim-safety, 1 SS regulating
- Reflectors – beryllium and graphite
- Forced primary coolant flow rate – 3,750 gpm (237 lps)
- Primary coolant temps – 120 °F (49 °C) in, 136 °F (58 °C) out
- Primary coolant system pressure – 85 psia (586 kPa)
- Forced pool coolant flow rate – 1,200 gpm (76 lps)
- Pool coolant temps – 100 °F (38 °C) in, 106 °F (41 °C) out
- Beamports – three 4-inch (10 cm), three 6-inch (15 cm)



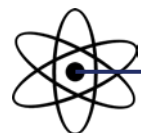
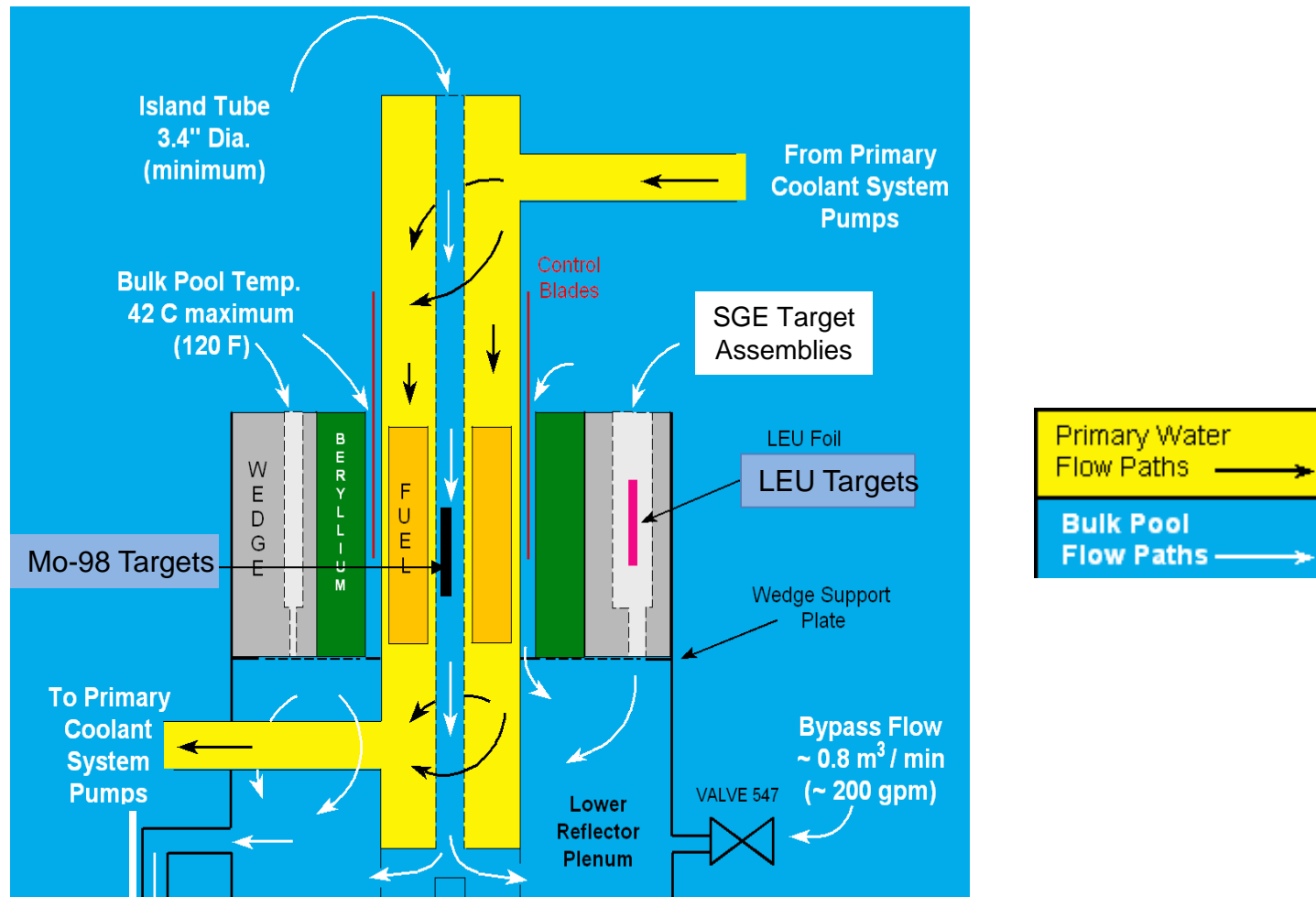
Mo-99 Target Irradiation Positions



Typical MURR
Reflector Element



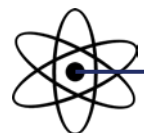
University of Missouri Research Reactor



Licensing Approach

Single Part 50 Class 104(c) License Two Part License Application

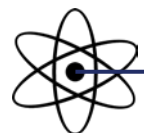
- Part One: In-Pool Activities
 - Amendment to existing Part 50 Utilization Facility License
- Part Two: Ex-Pool Activities
 - Amendment to authorize production activity under existing Part 50 Utilization Facility License



Licensing Approach

Single Part 50 Class 104(c) License Two Part License Application

- Construction Permit not required
 - No Material Alteration to the MURR facility
- No change to MURR's 10 MWt licensed power limit
- No change in Class 104(c) Utilization Facility License status



Licensing Approach

Single Part 50 Class 104(c) License Two Part License Application

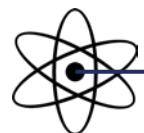
- Part One: In-Pool Activities
 - Amendment to existing Part 50 Utilization Facility License
- The In-Pool portion of SGE experiment will be an experimental facility with target rods/cartridge classified as a “secured experiment.”
- The main components of the In-Pool SGE experimental facility will consist of target assemblies (with LEU target rods in cartridges), a separate and dedicated cooling system for heat removal and associated instrumentation and controls.



Licensing Approach

Single Part 50 Class 104(c) License Two Part License Application

- Part Two: Ex-Pool Activities
 - Amendment to authorize production activity under existing Part 50 Utilization Facility License
- The main components of the Ex-Pool SGE experimental facility will consist of stand-alone hot cells and associated instrumentation and controls.
- The hot cells will be used to disassemble the LEU target rods for the purpose of separating Molybdenum-99 from the irradiated LEU.
- No “material alteration” of the facility will occur.

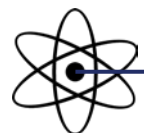


Licensing Approach

Construction permit should not be required

Material Alteration: 10 CFR 50.92(a)

“(a) In determining whether an amendment to a license, construction permit, or early site permit will be issued to the applicant, the Commission will be guided by the considerations which govern the issuance of initial licenses, construction permits, or early site permits to the extent applicable and appropriate. If the application involves the material alteration of a licensed facility, a construction permit will be issued before the issuance of the amendment to the license,....”

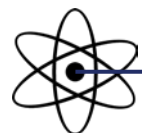


Licensing Approach

Construction Permit should not be required

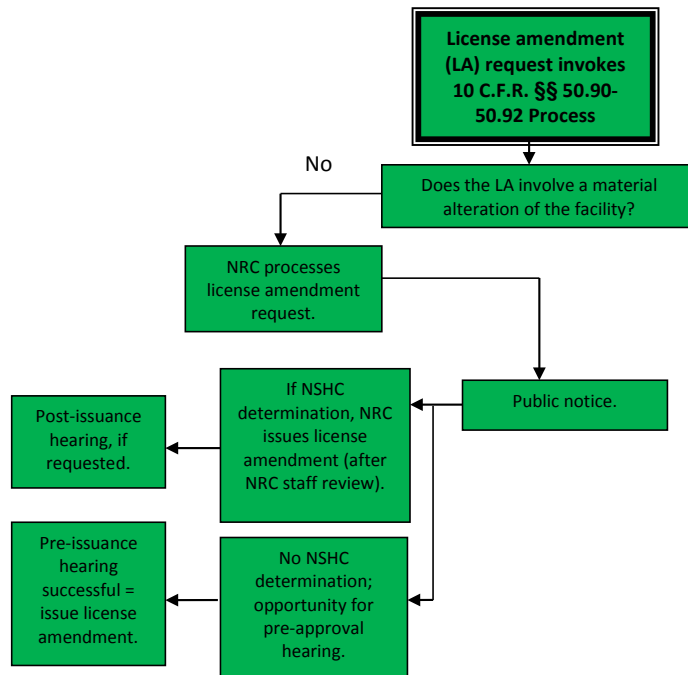
Precedence:

- There have been only two (2) previous instances where a construction permit was issued prior to issuance of an amendment to an operating license:
 - An amendment to the University of Maryland Research Reactor (issued March 2, 1971) – The material alteration was the complete removal of existing control rods, rod drive mechanisms, core instrumentation, and control room equipment and replacement with those of a different design. The change rendered major portions of the safety analysis inapplicable. (Construction Permit issued March 25, 1970)
 - An amendment to the Massachusetts Institute of Technology Research Reactor (MITR) (issued July 23, 1975) – The material alteration consisted of replacing the existing heavy-water moderated, cooled and reflected core with a light-water moderated, cooled, heavy-water reflected core, and modifications of installed systems to meet regulatory requirements. The change rendered major portions of the safety analysis inapplicable. (Construction Permit issued April 9, 1973)
- A construction permit was NOT required for the amendment to implement the MITR Fission Converter and it required a standalone cooling system.



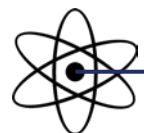
Licensing Approach

No Material Alteration



Decision Factors:

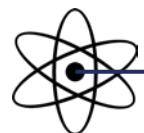
- No construction of new buildings or expansions to existing buildings
- Project requires installing typical, standard equipment that currently exists at MURR – such as hot cells, heat exchangers, pumps, etc.
- Irradiating targets in MURR’s graphite reflector region is common AND is outside the primary pressure boundary
- No dissolution of SNM
- After extraction and collection using the SGE technology, chemistry steps are standard and well within MURR’s staff experience
- MURR believes there is no “alteration” or “material alteration” to the facility
- **Construction Permit should NOT be required**



Licensing Approach

No change to 10 MWt Power Limit

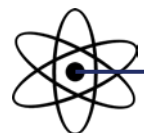
- Independent and dedicated cooling system:
 - MURR uses calorimetric procedures to determine and maintain reactor power within the licensed limit using primary, pool and secondary coolant system flow rates and differential temperatures.
 - The SGE experimental facility independent facility cooling system will be instrumented to monitor target assembly and secondary cooling flow rates and inlet and outlet temperatures so calorimetric procedures, similar to what is performed for the reactor, can be performed to determine experiment power.



Licensing Approach

No change to 10 MWt Power Limit

- Independent and dedicated cooling system: (con't)
 - The SGE experimental facility is designed to have:
 - ✓ Little or no net heat transfer to the reactor pool and pool coolant system.
 - ✓ No net heat transfer from the reactor pool and pool coolant system to the SGE experimental facility.
 - ✓ Should any heat be transferred to the reactor pool it will be conservatively included in the calorimetric calculation for reactor power level determination.
 - MURR intends to install two (2) N-16 reactor power monitoring systems as independent confirmation of reactor power.



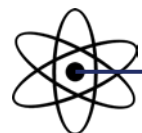
Licensing Approach

Single Part 50 Class 104(c) License

§ 50.21 Class 104 licenses; for medical and research and development facilities

(c)“A production or utilization facility, which is useful in the conduct of research and development activities ...”

- Class 104(c) vs Class 103 as more than 50% of the annual cost of owning and operating the facility will be devoted to research and development or education or training.
- In-Pool Activities: Amendment to existing Part 50 Utilization Facility License.
- Ex-Pool Activities: Amendment to authorize production activity under existing Part 50 Utilization Facility License.



General Discussion Topics

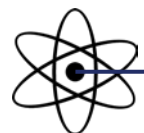
- *Discuss the anticipated submission and needed licensing approval schedules for the SGE experimental facility at MURR.*

Will be discussed during closed session



General Discussion Topics

- *Discuss the type and number of NRC licenses that will be requested.*
 - Part 1 will be an amendment to the existing MURR Class 104(c) utilization facility operating license.
 - Part 2 will be an amendment to authorize production activity under the existing MURR Class 104(c) utilization facility operating license.



General Discussion Topics

- *Discuss the SGE LEU separation technology, including any safety-related structures, systems and components (SSCs).*
 - The hot cells that the SGE separation process will be performed in will be designed and fabricated to Class II.
 - Cells will have sufficient shielding to ensure that dose rates to individuals during all activities are ALARA.
 - Processing equipment will be designed to prevent releases to the cell environment; however, no credit is taken for mitigation in an accident.
 - Sufficient filtration will be installed to ensure routine effluent releases and accident dose consequences are within 10 CFR 20 limits.
 - SGE hot cells will be in the reactor containment building; therefore, ultimate barrier against a release to the environment.
 - Radiation monitoring equipment will be installed in various locations.



General Discussion Topics

- *Discuss the SGE LEU separation technology, including any safety-related structures, systems and components (SSCs). (con't)*

Will be discussed during closed session



Discussion Topics

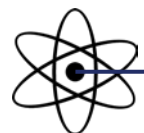
A. Will a Construction Permit be required (Title 10 of the *Code of Federal Regulations* [10 CFR] Section 50.23)?

- *Discuss the anticipated modifications to the existing MURR facility to accommodate the SGE project.*
 - In-pool portion of the SGE Project:
 - ✓ “LEU target assemblies, a separate and dedicated cooling system for heat removal, hot cells that will be used for processing the irradiated targets, and ancillary equipment to support these systems.” (MURR Ltr, page 2, dated Jan. 17, 2017)
 - ✓ Interface with facility Normal Electrical Power System to power the SGE experimental facility (Cooling Pumps and I&C System).
 - ✓ Interface with facility Secondary Coolant System to cool the SGE experimental facility.
 - ✓ Interface with reactor I&C System, specifically reactor safety system.



Discussion Topics

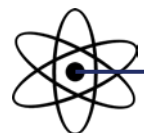
- *Discuss the anticipated modifications to the existing MURR facility to accommodate the SGE project. (con't)*
 - In-pool portion of the SGE Project: (con't)
 - ✓ Install SGE target assemblies in graphite reflector region and cooling water module (cooling pumps and heat exchangers) on CoStar tower.
 - ✓ Route required piping from cooling water module to target assemblies.
 - ✓ Install Cartridge Loading/Unloading Station in reactor pool.
 - ✓ Does not involve complete removal of major SSCs such as control rods or core instrumentation.
 - ✓ Does not involve significant modifications to the reactor itself.
 - ✓ Does not involve major revisions to the accident analyses.



Discussion Topics

- *Discuss the anticipated modifications to the existing MURR facility to accommodate the SGE project. (con't)*
 - Ex-pool portion of the SGE Project:

Will be discussed during closed session



Discussion Topics

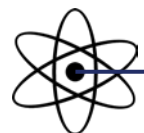
A. Will a Construction Permit be required (Title 10 of the Code of Federal Regulations [10 CFR] Section 50.23)?

- *Discuss whether the operation of the proposed experimental irradiation facility and the proposed production facility are integral to the operation of the reactor.*
 - The target housings will be situated in the graphite reflector region of the reactor; the LEU target rods (within a cartridge) will be secured to the target housings during irradiation and then removed from the reactor pool and transferred to the hot cells for ex-pool activities.
 - Though both the in-pool and ex-pool portions of the SGE project are interfaced with some MURR systems, the SGE experimental facility is not required to be in operation in order to operate the reactor; therefore, it is not integral to the operation of the reactor.



Discussion Topics

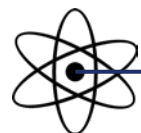
- *Discuss whether the operation of the proposed experimental irradiation facility and the proposed production facility are integral to the operation of the reactor. (con't)*
 - Regarding the proposed experimental irradiation facility (in-pool), bypass switches will be installed in the reactor safety system in order to bypass either or both target assemblies – reduced Mo-99 demand or an in-operational target assembly.
 - Regarding the proposed production activities (ex-pool), there are no interfaces between the hot cells and operation of the reactor.
 - See *also* discussion in SHINE rule SOC, 79 Fed. Reg. 62,329 re “integral.”



Discussion Topics

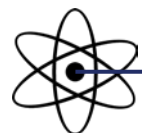
A. Will a Construction Permit be required (Title 10 of the *Code of Federal Regulations* [10 CFR] Section 50.23)?

- *Discuss whether the installation of the SGE hot cells will require a construction permit. (con't)*
 - As previously discussed, MURR feels that the modifications that need to be performed in order to implement the SGE experiment does not meet the threshold for the issuance of a construction permit. Installation of the hot cells and ancillary equipment will not change the safety analyses of the reactor and are aligned with the modifications previously performed at MURR for installation of various hot cells under the 50.59 and license amendment processes. In two previous instances at university research reactors (MIT and University of Maryland), construction permits were issued prior to the issuance of the amendment because there were substantial modifications which rendered major portions of the safety analysis inapplicable. This is not the case in the implementation of the SGE hot cells.



Discussion Topics

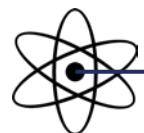
- *Discuss whether the installation of the SGE hot cells will require a construction permit. (con't)*
 - MURR has installed various hot cells (i.e., “processing units”) throughout the life of the original license; the NRC has never required a construction permit for such installations. (See LR SER, pages 10-4 to 10-7)
 - As part of license renewal, “the NRC staff observed the installation and use of additional hot cells and fume hoods,” finding such installations were evaluated in accordance with 10 CFR 50.59 and adequately described in the SAR. (See LR SER, pages 10-4 to 10-7)
 - Neither inspection reports nor the License Renewal Safety Evaluation Report suggest the need for a construction permit to install hot cells/processing units, even where Technical Specification changes were required via license amendment. *E.g.*, Amendment No. 37.



Discussion Topics

A. Will a Construction Permit be required (Title 10 of the *Code of Federal Regulations* [10 CFR] Section 50.23)?

- *Discuss any examples of a Part 50 production facility being constructed at a reactor.*
 - See, e.g., the hot cells discussed in Slide 32 that were “constructed” at MURR. The current cells are excepted from the definition of production facility due to limited production quantity. But, production quantity is not an input to the “material alteration” standard. Proper considerations include physical modifications and revisions to accident analyses.
 - No examples of “construction” of formal “production facilities” at existing reactors have been identified. Potentially other excepted hot cell activities at other research reactors. SHINE = no existing reactor; Byron = no production facility.



Discussion Topics

B. Will a change be required to MURR's licensed maximum operating power limit of 10 MWt due to the heat produced from the irradiation of the LEU targets?

- *Discuss the neutronic and thermal-hydraulic coupling between the SGE LEU targets and the reactor core.*

- Neutronic:

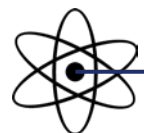
- ✓ MURR core excess reactivity will increase slightly

| | 5A/5B filled with structure and water (K_{eff}) | Target in 5A | | Target in 5B | |
|--------------------------------|--|------------------|------------------|------------------|------------------|
| | | K_{eff} | $\Delta k/k$ (%) | K_{eff} | $\Delta k/k$ (%) |
| Maximum with equilibrium xenon | 0.99368 | 0.99658 | 0.29 | 0.99660 | 0.29 |
| Average with equilibrium xenon | 0.99392 | 0.99673 | 0.28 | 0.99677 | 0.29 |
| Minimum without xenon | 0.99385 | 0.99662 | 0.28 | 0.99690 | 0.31 |
| Extreme without xenon | 0.99382 | 0.99667 | 0.29 | 0.99685 | 0.31 |



Discussion Topics

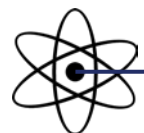
- *Discuss the neutronic and thermal-hydraulic coupling between the SGE LEU targets and the reactor core. (con't)*
 - Neutronic:
 - ✓ Neutron flux and power of the fuel element adjacent to the target assemblies (F5) will increase slightly but within the bounds of the power peaking factors established in the MURR operating limits
 - Thermal-hydraulic:
 - ✓ The thermal power generated by the target rods will not affect cooling of the reactor or the pool. A dedicated cooling system will remove the heat from the target rods. Any heat that is discharged into the reactor pool will be removed by the pool coolant system and considered in the reactor power calorimetric.



Discussion Topics

B. Will a change be required to MURR's licensed maximum operating power limit of 10 MWt due to the heat produced from the irradiation of the LEU targets?

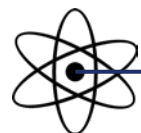
- *Discuss any new accidents, changes to the maximum hypothetical accident (MHA), safety-related SSCs, or engineering safety features created by irradiating the SGE LEU targets.*
 - All MURR reactor accidents were analyzed and their potential impact on the SGE experimental facility.
 - Positive Step Reactivity Insertion Accident increases peak target temperature by 205 °C. All other reactor accidents have no affect on the SGE experimental facility.
 - Maximum hypothetical, loss of low, loss of coolant and target rod mishandling accidents were analyzed for the SGE experimental facility.
 - No Engineered Safety Features (ESFs) are required.



Discussion Topics

- *Discuss any new accidents, changes to the maximum hypothetical accident (MHA), safety-related SSCs, or engineering safety features created by irradiating the SGE LEU targets. (con't)*
 - Natural convection flow path (Decay Heat Removal System) to remove decay heat and stored energy after shutdown.
 - Should Decay Heat Removal System not activate (although designed with redundant valves), temperatures do not exceed cladding failure temperatures.
 - Worst case radiological accident was analyzed – breach and complete release of all gap radioactivity in one target rod into the reactor pool.

| Area | MURR MHA (fueled experiment failure) | SGE MHA (failure of a target rod) |
|---------------------|---|--------------------------------------|
| Restricted (TEDE) | 1180.33 mrem | 398.18 mrem |
| Unrestricted (TEDE) | 0.0112 mrem | 0.00747 mrem |

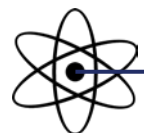


Discussion Topics

B. Will a change be required to MURR's licensed maximum operating power limit of 10 MWt due to the heat produced from the irradiation of the LEU targets?

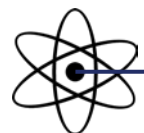
- Discuss the k-effective of the SGE LEU targets during irradiation and when the reactor is shutdown, and any impact on the MURR shutdown margin.

| | 5A/5B filled with TA and water (K_{eff}) | Target in 5A | | Target in 5B | |
|--------------------------------|---|------------------|------------------|------------------|------------------|
| | | K_{eff} | $\Delta k/k$ (%) | K_{eff} | $\Delta k/k$ (%) |
| Maximum with equilibrium xenon | 0.99368 | 0.99658 | 0.29 | 0.99660 | 0.29 |
| Average with equilibrium xenon | 0.99392 | 0.99673 | 0.28 | 0.99677 | 0.29 |
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Discussion Topics

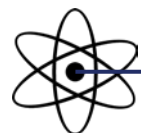
- *Discuss the k-effective of the SGE LEU targets during irradiation and when the reactor is shutdown, and any impact on the MURR shutdown margin. (con't)*
 - Core excess reactivity with two (2) target assemblies filled with 11 fresh target rods each (22 total) was conservatively calculated for the minimum burnup core configuration – largest excess reactivity case. The excess reactivity of the cold core case is $0.072 \Delta k/k$ and for the hot core case is $0.067 \Delta k/k$ – Technical Specification limit is $0.098 \Delta k/k$. Typical MURR excess reactivity for the average burnup case is $0.045 \Delta k/k$.
 - Lowest Shutdown (SD) Margin (with most reactive shim blade and regulating blade fully withdrawn) was conservatively calculated at $0.055 \Delta k/k$ – Technical Specification limit is $0.02 \Delta k/k$. Typical MURR SD Margin is $0.07 \Delta k/k$.



Discussion Topics

B. Will a change be required to MURR's licensed maximum operating power limit of 10 MWt due to the heat produced from the irradiation of the LEU targets?

- *Discuss if the proposed SGE module cooling system is completely separate and independent from the existing cooling systems used to cool the MURR core.*
 - “MURR's secondary coolant system, which cools both the primary and pool coolant systems, will provide the cooling water to the SGE experimental facility heat exchangers.” (MURR Ltr, pages 4 to 5, dated Jan. 17, 2017)
 - “The main components of the SGE experimental facility will consist of ... a separate and dedicated cooling system for heat removal....” (MURR Ltr, page 2, dated Jan. 17, 2017)
 - Yes, the SGE experimental facility cooling system is completely separate and independent from the MURR primary and pool coolant systems. The only interface is with the MURR secondary coolant system, which will cool the SGE experimental facility. The MURR cooling tower is sized for 15 MW operation.



Discussion Topics

C. Will a production facility license be required?

- *Discuss the process MURR intends to follow to request a license for the production facility (e.g., Interim Staff Guidance to NUREG-1537 for radioisotope production facilities to support this licensing request).*
 - The NRC has previously concluded a combined production/utilization facility license is legally permissible in the isotope production context. See SECY-09-0101, page 3 (and SRM approving this approach).
 - Benefits include the ease of addressing common SSCs.
 - MURR will seek an amendment to its existing utilization facility license to authorize the production activity.
 - The application will consider appropriate guidance, e.g., Final ISG Augmenting NUREG-1537, Part 2 § 12.7:
 - “If the facility is a combined non-power reactor and a radioisotope production facility, the NRC staff expects the applicant to provide one emergency plan for the entire site.”



Discussion Topics

D. Will a change from a class 104c license (10 CFR 50.21) to class 103 (10 CFR 50.22) be required? (non-commercial vs. commercial)

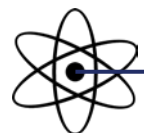
- *Discuss whether MURR's proposed production facility, dedicated to commercial molybdenum-99 production, could qualify as a non-commercial facility without taking credit for the educational and research activities conducted at the reactor.*
 - Less than 50% of the annual cost of owning and operating MURR is devoted to commercial purposes. MURR fully intends to continue its practice of expending greater than 50% of its owning and operating budget towards research and education. This SGE project will further contribute to MURR's ability to fund research and educational activities at the University of Missouri.



Discussion Topics

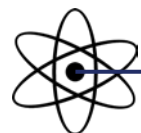
D. Will a change from a class 104c license (10 CFR 50.21) to class 103 (10 CFR 50.22) be required? (non-commercial vs. commercial)

- *Discuss the basis for MURR's position that the production facility and utilization facility (reactor) can be considered jointly under the 10 CFR 50.22 criteria for a commercial facility.*
 - A “license” is issued as class 103 or 104. MURR's license (singular) would authorize production and utilization. Thus, in determining the appropriate class of license, all ownership and operational costs under the license should be considered, not separated by activity.
 - Even if the NRC views the license class question as ambiguous, the university should be entitled to the benefit of the doubt because the question is not related to common defense and security or health and safety of the public, and Congress directed the Commission to impose only “minimum” regulation on licensees such as MURR. See AEA § 104(c).

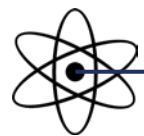


Summary

- MURR plans to submit a two-part amendment to the current Part 50, Class 104(c) license with no overall change in *utilization facility* status.
- Implementation of GA SGE technology at MURR is not considered an “alternation” or “material alteration” to the facility and thus should not require a construction permit.
- No change to MURR’s 10 MWt power limit as the SGE experimental facility will have independent cooling system with instrumented so as to enable performance of calorimetric calculation.
- No change to Class 104(c) status as MURR will continue to have greater than 50% of the annual cost of owning and operating the facility devoted to research and development, education or training.



Thank you for your attention, questions?

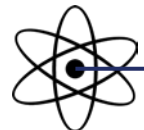


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BREAK

Proprietary Closed Session



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