



# Centrifuge Storage Building - CAAS Exemption Request Pre Application Meeting

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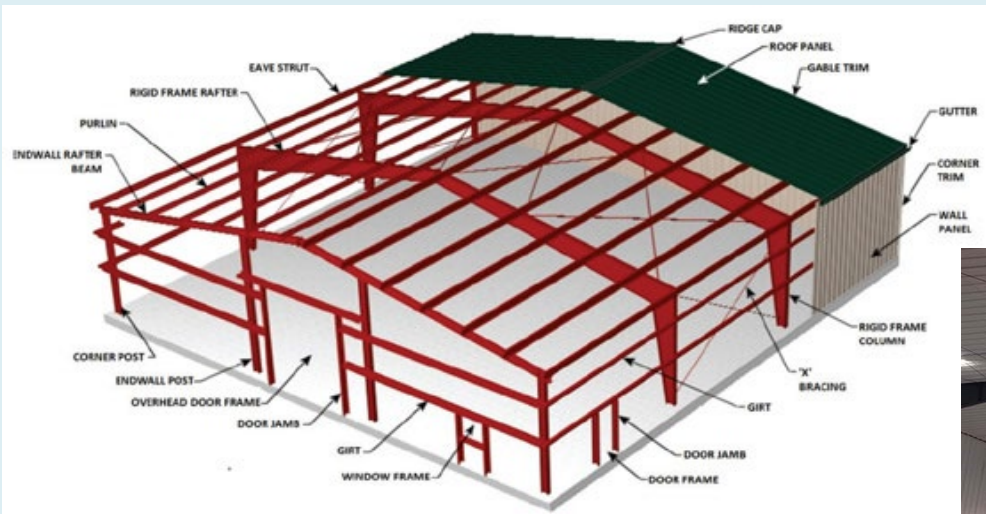
**Urenco USA is the only operating commercial uranium enrichment facility in the United States**

## Meeting Purpose

- Soon to be built Centrifuge Storage Building (CSB) will allow removal of non-functional centrifuges from production areas and replacement with new machines
- CSB has planned area of ~50,000 ft<sup>2</sup>
- Space for storing ~20,000 centrifuges
- Centrifuges will be secured on pallets



# Preliminary Concept - Centrifuge Storage Building



Common Parts of a Metal Building System



# Basis for Exemption Request

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- ANSI/ANS 8.23, Nuclear Criticality Accident Emergency Planning and Response
  - CAAS may create risks to workers as a result of false actuation:
    - injury during evacuation and disruption of operations
    - can result in increased routine radiation exposures to personnel who must calibrate, test, and maintain the system
  - Installation of an alarm system where there is a negligible risk of criticality can result in a net reduction in safety
  - Little, or no, safety benefit to have a Criticality Accident Alarm System in an area where a criticality event is not credible
- No operational activities will occur in the Centrifuge Storage Building
- Low volumes of enriched material that are not of safety concern
- Applying resources to more Risk Significant Activities on site

# Requesting Exemption to 10 CFR 70.24(a)

In accordance with 10 CFR 70.17 “Specific exemptions” LES requests NRC approval of a permanent exemption from the criticality monitoring requirements of 10 CFR 70.24(a) for the planned UUSA Centrifuge Storage Building. This exemption request is based on the determination that a criticality accident in this area is not credible in accordance with NUREG 1520 Section 3.4.3.2 and the Urenco Safety Analysis Report Section 3.2.5.2.



# Requesting Exemption to 10 CFR 70.24(a)



- UUSA proposed a revised license condition in Materials License SNM-2010 to state the following:
  - Condition 33:
    - The licensee is exempted from the specific requirement in 10 CFR Paragraph 70.24(a) requiring gamma or neutron sensitive radiation detectors in the existing Cascade Halls and proposed future Cascade Halls that are designed consistent with the halls analyzed in LAR 13-01. This exemption is also granted for Outdoor 30B Cylinder Storage Areas as discussed in LAR 17-03; however, this exemption is limited to only filled 30B product cylinders containing less than or equal to 5 wt. percent U-235 for the Outdoor Cylinder Storage Areas.
    - ***The licensee is also exempted from the specific requirement in 10 CFR Paragraph 70.24(a) requiring gamma or neutron sensitive radiation detectors in the planned UUSA Centrifuge Storage Building consistent with the analysis in LAR 25-03.***

## Similarity to current exemptions

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- Cascade halls are exempt from requiring gamma or neutron sensitive radiation detectors in the existing Cascade Halls and proposed future Cascade Halls that are designed consistent with the halls analyzed in LAR 13-01 (Materials License SNM-2010 Condition 33)
- This exemption is also granted for Outdoor 30B Cylinder Storage Areas as discussed in LAR 17-03; however, this exemption is limited to only filled 30B product cylinders containing less than or equal to 5 wt. percent U-235 (Materials License SNM-2010 Condition 33)



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