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International Atomic Energy Agency  
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# **Licensee Submittals and Review and Assessment for Operation [M05.L06]**

**International Training Course on Regulatory Functions  
for Security of Nuclear Material, Nuclear Facilities and  
Associated Activities**

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**Division of Nuclear Security  
Department of Nuclear Safety and Security**

# Learning Objectives



Upon completion of this lesson, participants should be able to:

1. Identify various submittals that may be required from licensees during the operation of a nuclear facility, and
2. Understand the review and assessment activities that may need to be performed by the regulatory body during operation.

# Nuclear Security Considerations

## during Operation (1/5)



- Before NF operation is authorized, all regulatory requirements associated with the following activities should be confirmed as being met
  - Successful completion of PPS commissioning
  - Validated PPS operating instructions and procedures exist
  - Availability of adequately qualified security staff with account taken of the need to work in shifts, when appropriate
  - Security plan and contingency plan are approved and based on threat assessment or DBT
  - Successful completion of exercises (including force-on-force exercises, if appropriate) to ensure effectiveness of security and contingency plans

# Nuclear Security Considerations during Operation (2/5)



- During NF operation, all regulatory requirements should be met at all times including periods of extended shutdown and refuelling outages.
- The security plan should cover the operation of the PPS during normal and emergency operating conditions.
- The implementation of the PPS as described in the security plan should be part of the license conditions.

# Nuclear Security Considerations during Operation (3/5)



- The licensee/operator should be required to:
  - review the security plan periodically to ensure that it remains valid and up to date with the current evaluation of the threats and the current status of the PPS
  - submit amendments to the security plan for approval by the regulatory body before making significant modifications to the PPS

# Nuclear Security Considerations during Operation (4/5)



- In cases where several co-located facilities share common security-related features, arrangements should be made to ensure that overall nuclear security is not compromised.
- The regulatory body should conduct periodic reviews and inspections to verify licensee's compliance with nuclear security requirements during operation of the nuclear facility.

# Nuclear Security Considerations during Operation (5/5)



## Sustainability of Nuclear Security

- The operator should regularly review the PPS in order to confirm that it remains in compliance with regulatory requirements and is adequate for the threat environment or DBT.
  - Security plan, sub-plans and procedures
  - Annual plan for performance testing of SSCs
  - Annual preventive maintenance programme, including spare parts inventory list and ageing management
  - PPS configuration management system
  - Program for security improvement actions (equipment, training and other resources)
  - Management succession plan and staff hiring plan

# Licensee Submittals during Operation (1/2)



The licensee normally provides the regulatory body with regular reports on PPS performance, which may include:

- Periodic reports on PPS performance testing (individual component testing, force-on-force exercises, etc.)
- Ad-hoc reports on security events or identified failures or deficiencies in the PPS, including the compensatory measures applied



## Licensee Submittals during Operation (2/2)



The licensee normally informs the regulatory body about significant changes and updates as follows:

- Updates to security plan and related sub-plans and procedures, especially updates made to address security concerns or identified deficiencies (regulatory approval may be needed in advance)
- Changes in material categories and inventories
- Major changes in management organization and management/quality program
- Changes to PPS SSCs (regulatory approval may be needed in advance)

# Licensee Submittals for License Renewal

- If license renewal is an element of the State's regulatory framework, the licensee should submit an application for operating license renewal well before expiration of the current license.
- The license renewal process (including submittals by the licensee and reviews/assessments by the regulatory body) may be similar to the process of initial authorization for operation.
- Typical submittals for license renewal may include:
  - Revised security plan
  - Detailed report on how the nuclear security objectives have been fulfilled
  - Summary of modifications requiring regulatory approval to original security plan or systems
  - In-place agreements that assure continued contingency plan response (on-site and off-site)
  - PPS ageing management report and justification for continued use

# Review and Assessment during Operation (1/4)

- The following documentation can typically be considered for regulatory review and assessment during the Operation lifetime stage.
  - Significant PPS design changes
  - Updated security plan, including procedures to implement
  - Compensatory measures to respond temporary increases in the threat environment or PPS failures
  - Corrective actions to resolve identified deficiencies in PPS performance
  - Results of periodic performance tests and exercises
  - Nuclear security event analysis, including other events at similar facilities worldwide
- Regulatory inspection is an important tool to verify licensee compliance with security requirements and license conditions during the Operation stage.

# Cessation of Operation

- Cessation of Operation is a condition where NF operations have ceased either temporarily (major modifications, maintenance, repair), or permanently (prepare for decommissioning).
- In such circumstances, the nuclear security requirements for the facility are not expected to change significantly until the nuclear material is moved either off-site.
- Prior to any change in nuclear material location, the following should be considered:
  - Changes in inner areas, sabotage targets, and vital areas
  - New adversary pathways to be analyzed and, if needed, protected
  - Changes in overall PPS layout
  - New vulnerability analysis
- The above activities will require formal notification by the licensee to the CA and new submittals (updated security plan, etc.).

# Summary

- During NF operation, all regulatory requirements should be met at all times including periods of extended shutdown and refuelling outages
- Appropriate arrangements should be put in place for reporting any deviations from normal operation to the regulatory body
- Any significant change or modification in the approved security plan or PPS design should be subject to regulatory approval.



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*Thank you!*

