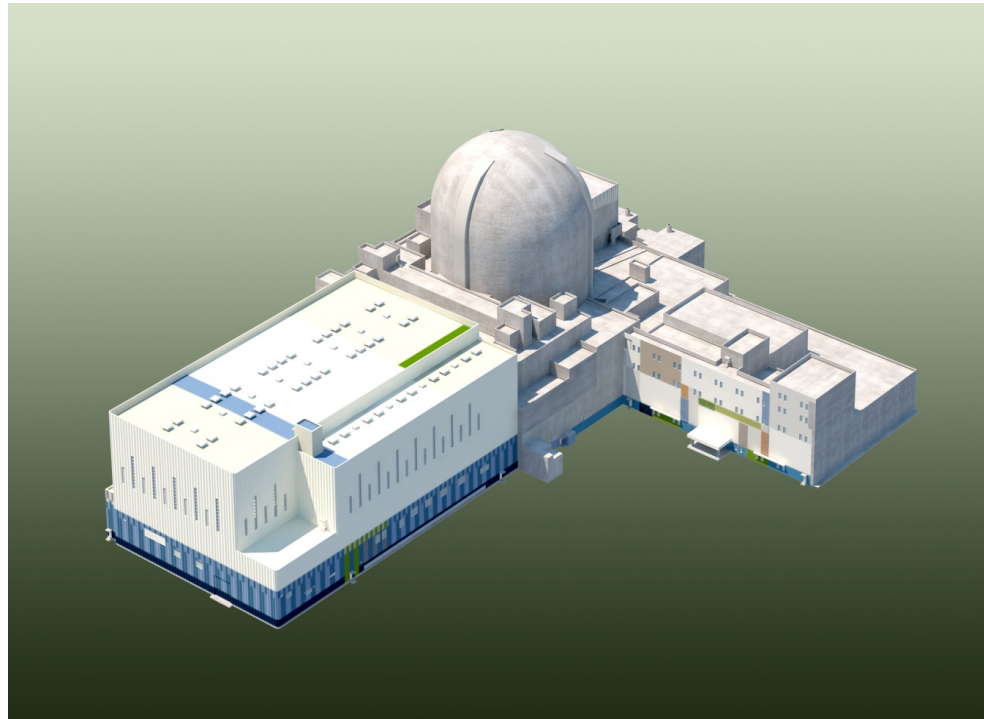


# APR1400 Plant Security Design (Physical Security)



**KEPCO/KHNP**  
**Apr. 20~21. 2016**

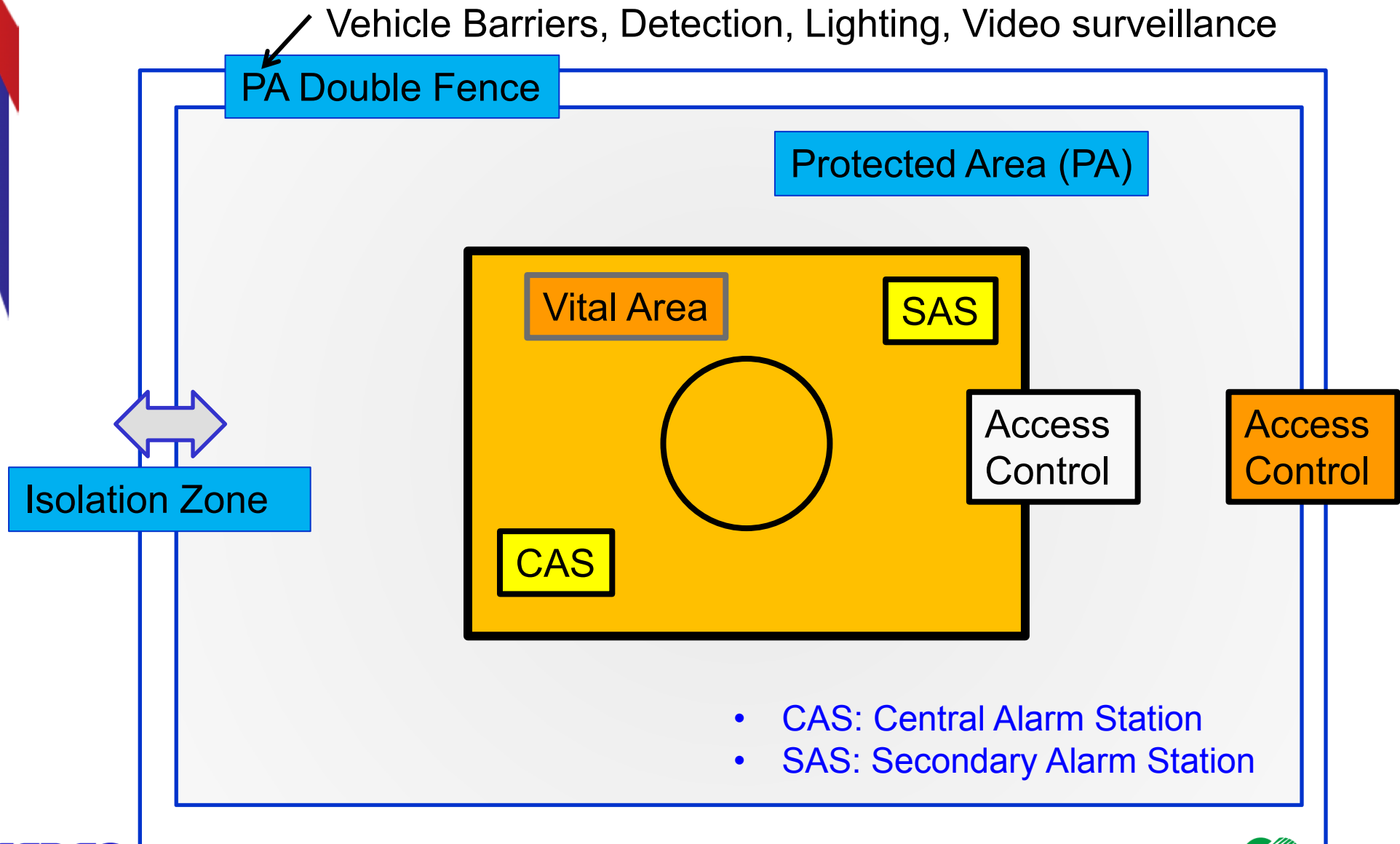
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# Introduction

## ● Security areas of a nuclear power plant (Generic)



# Introduction

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- **Regulatory Requirements**

- 10 CFR 73, “Physical Protection of Plants and Materials”
- 10 CFR 73.55, “Requirements for Physical Protection of Licensed Activities in Nuclear Power Reactors against Radiological Sabotage”

(DC and COL Stage)

(e) Physical barriers

(g) Access controls

(i) Detection and assessment systems

(j) Communication requirements

# Introduction

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- (COL Stage)
- (c) Security Plans
- (d) Security Organization
- (f) Target Sets
- (h) Search Programs
- (k) Response Requirements
- (l) Facilities using Mixed-Oxide(MOX) fuel assemblies containing up to 20 weight percent plutonium dioxide (PuO<sub>2</sub>)
- (m) Security program reviews
- (n) Maintenance, testing , and calibration
- (o) Compensatory measures
- (p) Suspension of security measures
- (g) Records
- (r) Alternative measures

# Introduction

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## ● Regulatory References

- RG 5.7, “Entry/Exit control for protected areas, vital areas, and material access areas,” Revision 1, May 1980
- RG 5.12, “General use of locks in the protection and control of facilities and special nuclear materials,” November 1973
- RG 5.44, “Perimeter intrusion alarm systems,” Revision 3, October 1997
- RG 5.65, “Vital area access controls, protection of physical security equipment, and key and lock controls,” September 1986
- NUREG 1959, “Intrusion detection systems and subsystems,” updating technical information in RG 5.44

# Introduction

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## ● Regulatory References

- SRP 13.6.2, “Physical security-Design certification,” Revision 1, October 2010
- SRP 14.3.12, “Physical security hardware-Inspections, tests, analyses, and acceptance criteria,” Revision 1, May 2010

# APR1400 DCD Overview (1/3)

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# APR1400 DCD Overview (2/3)

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# APR1400 DCD Overview (3/3)

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# Physical security design features

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# Summary

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