SUBJECT: MEETING SUMMARY – CATEGORY 1 MEETING, AREVA ENRICHMENT SERVICES (AES)– DOCKET NUMBER 70-7015

AREVA Enrichment Services (AES) Presentation to NRC Region II

Atlanta, GA
October 20, 2011

Enclosure 2

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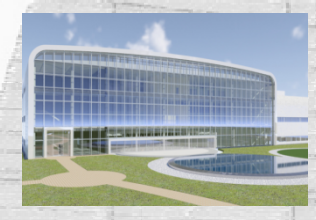
Major Achieved Milestones

- **Site selected** — 2008
- **Submit license application** — 2009
- **Plant detailed design started** — 2009
- **Conditional DOE loan guarantee** — 2010
- **Construction contract awarded to URS** — 2011
- **NRC License issued** — 2012



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Construction Schedule
Short Term Milestones

2012

MARCH

- Start of Construction
- First IROFS boundary package completion (seismic buildings)

JULY

- SBM/CAB Excavations Complete

AUGUST

- First IROFS Concrete Pour (SBM)

DECEMBER

- First IROFS Steel Erection (SBM)

2013

First IROFS boundary package completion (UF6 Equipment)

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Project Status
Current Organization

President & CEO
Project Director
S. Shakir

L. Davis-Walker

Plant Operations Manager
B. Tilden

Gov Affairs Advisor
M. French

VP Construction
M. DiMercurio

K. Rowberry

Director Business Analysis
JL. Palayer

H. Ramatala
J. Kazzaz

Purchasing Manager
I. Schmidt

QA Manager
K. Marlow

E. Weiner (C)
T. Duarte (C)
J. Bernardo (C)

VP Eng / Licensing
G. Harper

J. Gauthier

Controller
G. Wilde

HR manager
G. Nourry

Legal
A. Genevois

Deputy Construction Manager
M. Lynch

Contracts Manager
E. Macbeth

Buyer - TBD
Ofc. Manager - TBD
Asst. Cont. Mgr - TBD
Cost Analyst - TBD

Commissioning Manager
W. Barker

Commissioning Team - TBD

Project Controls Manager
M. Lynch

E. Rogers
K. Vander Stoep
T. Emrich
J. Cook (C)

VP Regional Affairs
W. Poyser

Safety, Safeguards & Security Manager
D. Parker

K. Keefe

Field PM - TBD
Cascades & Core Process

Contracts Mgr - TBD

Chief Field Engineer
TBD

Field Engineer Team - TBD

Project Engineering
TBD

ISA Manager
D. Pepe

S. Tyler (C)
P. Stevens (C)

I&C/Electrical Manager
L. Delale

B. Gardes (C)
J. Williams (C)

Licensing Manager
J. Kay

S. Thomson (C)
G. Van Noordennen (C)

PM BoP
J. Boshoven

D. Johnson
J. Bakke (C)
J. Flaherty (C)
R. Black (C)

PM Process
JM. Bourachot

J. Foulloy
A. Miller

Project Coordinator

L. Prevallet
M. Lyons
J. Ryan-Murphy (C)

An Experienced Team…

- **US centrifuge plant Licensing and Engineering**
- **ETC centrifuge plant design, construction and start-up experience**
- **Operation of US enrichment facility**
- **Commissioning at US depleted UF6 deconversion facility**
- **Project and construction management of large industrial facilities**
- **Extensive enrichment and nuclear industry QA experience**
- **Broad European procurement and logistics experience**

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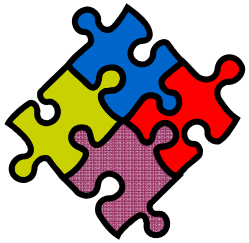
Scope Division

	Cascades	Core Process	Balance of Plant	Coordination
				
Engineering	*ETC*	*E&P*	*NTS Shaw*	*AES*
Procurement	*ETC*	*E&P*	*URS*	*URS*
Construction & Manufacturing	*ETC*	*E&P*	*URS*	*URS*
Site Installation	*ETC*	*URS*	*URS*	*URS*
Cold Commissioning	*ETC*	*E&P*	*URS*	*URS*
Hot Commissioning	*AES/ETC*	*AES*	*AES*	*AES*

Project will establish a Site Engineering Office (SEO) with representatives from all design engineering firms coordinated by URS

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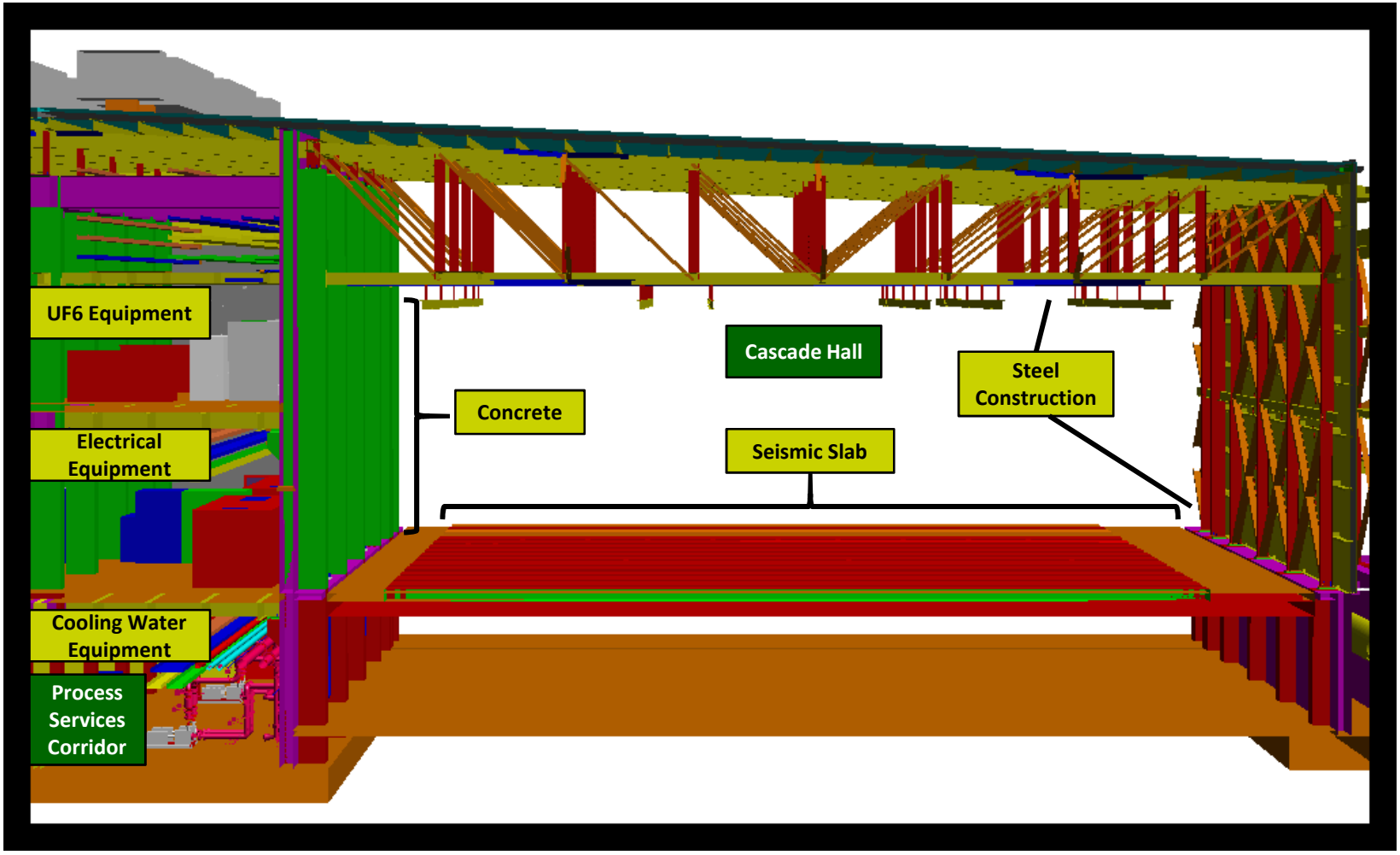
Separations Building Module



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Building on Proven Experience

Experienced Team

Entity	Responsibility	US Experience *NRC Licensee*	European Experience
NTS	Balance of Plant	✓	
ETC	Cascades	✓	✓
AREVA	Core Process	✓	✓
AES	Management	✓	✓

Reference Plant

Georges Besse II Plant

- **Several cascades currently running**
- **EREF using copy-paste principles applied to reference plant design to maximum extent for UF_6 process systems with Americanization (U.S. codes and standards, IROFS, OSHA, etc) as required**

Assembled an experienced team with direct access to proven designs from Reference Plant

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Design Maturity

To Support Field Construction and Fabrication

- Balance of Plant design undergoes interface reviews by all design entities, constructability reviews by URS and owner acceptance by AES prior to going to the field
- Design of core process is mature and based on Reference Plant, Americanized as required, and currently in operation at Reference Plant
- Balance of Plant design is well advanced with all critical path packages including: site, CAB, SBM ready to begin procurement
- Cascade and core process design is well advanced and ready to begin procurement

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Quality Assurance Program Implementation

Topics

- QA Program Development
- AES QA Graded Approach
- Value of Graded Approach
- Supplier Qualification Methods
- Acceptance of Items and Services
- Examples of QAPD Implementation by Quality Level
  - QA Level 1, 2, & 3
- AES QA Flow-down to subcontractors

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QA Program Development

- **Based on requirements:**
  - **10 CFR 70 Management Measures**
- **Based on knowledge and experience:**
  - **10 CFR 72 quality programs**
    - Guidance for implementation of graded approach
      - NUREG/CR-6407, Regulatory Guide 7.10
    - Prior successful implementation of graded quality program by AREVA in the US
  - **Guidance from NQA-1 (Addresses all 18 criteria)**
  - **Industry lessons learned**
    - LES, USEC, MOX

Steps in the QA Graded Approach

❶ **The Boundary for each Item Relied On For Safety (IROFS) is developed and documented**

❷ **Components within the IROFS boundary are graded and critical attributes defined for QA Level 1 & 2 items**

- **Critical Attributes are those attributes required for a component to perform its intended safety function**
- **Engineering provides written justification based on the safety function of the component**

❸ **Suppliers are qualified per QAPD Section 7.4.1** ***(see slide 15)***

❹ **Methods of acceptance per QAPD Section 7.4.6** ***(see slide 16)*** **with focus on critical attributes defined during grading**

QA Grading is an Engineering Process and does not include methods for determining product acceptance

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Value of the Graded Approach

- **Flexibility within AES QA program to approve vendors and select high-quality vendors with proven track records**
- **Results of QA Grading Process (Critical Attributes) can be used in focusing Quality Assurance / Quality Control in the following areas:**
  - **Audits and Surveillances - focused on required QA Elements to support supplier qualification.**
  - **Source and/or Receipt Inspection Planning**
  - **Quality Records - Specifically identifies records requirements**

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Supplier Qualification Methods
QAPD Section 7.4.1

Pre-award evaluation of capability to provide items or services in accordance with the requirements of procurement documents

Supplier History and Evaluation	Supplier QA Program	NRC-Approved QA Program	ASME Code Certification
Evaluation of supplier's history providing an identical or similar product that performs satisfactorily in actual use	QA Program meeting the applicable requirements of accepted industry regulations or standards such as: NQA-1, ISO 9001, ANSI Z540-1, 10 CFR Part 50 – Appendix B, or 10 CFR 830.120.	Supplier maintains and implements a NRC-approved QA program, initial audit per section 18.2 of the QAPD	Supplier maintains a valid ASME Code Certification for the item or service being provided, initial audit per Section 18.2 of the QAPD
Reflects current capability	QA program implementation will be verified by audit		
Examine the supplier's current quality program and implementing procedures with quality records			

Quality Level 1	(Supplier audit) **OR** (Supplier history *and* one other acceptance method)
Quality Level 2	(Supplier audit) **OR** (any *one* of the above acceptance methods)
Quality Level FP	Supplier history and evaluation (See Section A.2.3 of Appendix A of the QAPD)
Quality Level 3	Standard Commercial Practices

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Acceptance of Items and Services

QAPD Section 7.4.6

Certificate of Conformance (C of C)
Identifies purchased material, equipment or PO
Identifies specific procurement requirements list
Identifies procurement requirements that were not met and approved waiver
Authenticated by a person responsible for this QA function
C of C procedures are described in the supplier's QA program or PO
Supplier's certificates and effectiveness of certification system are verified
Maintenance of material(s)/components/equipment traceability to certification documentation *(as required for QA Level 1 only)*

Source Verification
Performed at intervals consistent with quality level and complexity of the item or service
Provides plans to perform inspections, examinations or tests at predetermined points
May be performed at lower tier suppliers when necessary
Results may be utilized to support receiving inspection

Receiving Inspection
Purchased items are inspected to verify conformance to procurement documents
Verifies by objective evidence such features as proper configuration, identification, dimensional, physical, freedom of damage from shipping, and cleanliness
Review of supplier documentation when procurement documents require the documentation to be furnished

Post-Installation
Post-installation test requirements and acceptance criteria are established in conjunction with the supplier

Quality Level 1	A Certificate of Conformance **plus** one or more of the other methods listed above
Quality Level 2	**Any one or more** of the methods listed above
Quality Level FP	In accordance with Section A.2.6 of Appendix A of the QAPD
Quality Level 3	Standard Commercial Practices

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Examples of Grading for IROFS51
Seismic Building

Examples of Grading for Concrete

Item	QA Level
Ingredients	3
Mixing	3
Placement	3
Cylinder (make/cure)	3
Cylinder Break	2
Critical Dimensions	2
Rebar size, shape and spacing	2
Other Tests	3
Other Processes	3

Examples of Grading for Steel

Item	QA Level
Dimensions	2
Material Specification	2
Installation per Design	2
Weld Material	2
Welder Qualifications	2
Permanent Bolted/Welded Connections	2
Temporary attachments/connections	3
Painting/Finishing	3

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Example for Concrete within IROFS Boundary for Seismic Buildings (IROFS51)

Item/Activity	QA Level 2	QA Level 3
Supplier Qualification		
Batch Plant (on URS ASL)	*N/A, follow QA Level 3*	Standard Commercial Practices
Constructor (on URS ASL)	Per QAPD 7.4.1, e.g., evaluation of supplier's history of performance	*N/A, follow QA Level 2*
Test Lab (Cylinder Break Test) (on URS or contractor ASL)	Per QAPD 7.4.1, e.g., evaluation of supplier's history of performance	*N/A, follow QA Level 2*
Acceptance of Items		
Mix materials and Mix Process at Batch Plant	*N/A, follow QA Level 3*	Standard Commercial Practices – meet all codes and standards – standard C of C from batch plant to URS
Other Tests (e.g. air, slump, unit weight, w/c ratio, etc)	*N/A, follow QA Level 3*	Standard Commercial Practices – meet all codes and standards – standard C of C from constructor or URS
Installation by Constructor (e.g., placement, consolidation, curing, finishing, etc.)	*N/A, follow QA Level 3*	Standard Commercial Practices – meet all codes and standards – standard C of C from constructor to URS
Installation by Constructor – (member size, rebar size, shape and spacing)	QA records per QAPD 7.4.6, e.g., C of C from constructor to URS verifying installed per design	*N/A, follow QA Level 2*
Strength Tests by Lab	Break Test – meet all codes and standards – M&TE QA records – C of C (per QAPD 7.4.6) from test lab to constructor or URS	*N/A, follow QA Level 2*
Final Packages (Contractor certification to URS and URS certification to AES will also include other required QA records such as inspection reports, C of C, etc.)	QA Level 2 portions listed above	QA Level 3 portions listed above

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Example of Steel within IROFS Boundary for Seismic Buildings (IROFS51)

Item/Activity	QA Level 2	QA Level 3
Supplier Qualification		
Mill (on fabricator ASL)	Per QAPD 7.4.1, e.g., evaluation of supplier's history of performance	*N/A, follow QA Level 2*
Fabricator (on constructor ASL)	Per QAPD 7.4.1, e.g., evaluation of supplier's history of performance	*N/A, follow QA Level 2*
Erection of steel (on URS ASL)	Per QAPD 7.4.1, e.g., evaluation of supplier's history of performance	*N/A, follow QA Level 2*
Acceptance of Items		
Steel – Critical Attributes	QA records per QAPD 7.4.6, e.g., C of C from Mill and C of C from fabricator	*N/A, follow QA Level 2*
Steel – Non-critical attributes	*N/A, follow QA Level 3*	Standard commercial practices – meet all codes and standards – standard C of C from Mill and C of C from fabricator
Erection (By constructor)	QA records per QAPD 7.4.6, e.g., C of C from constructor to URS verifying installed per design	*N/A, follow QA Level II*
Final Packages (Contractor certification to URS and URS certification to AES will also include other required QA records such as inspection reports, welder certs, etc.)	QA Level 2 portions listed above	QA Level 3 portions listed above

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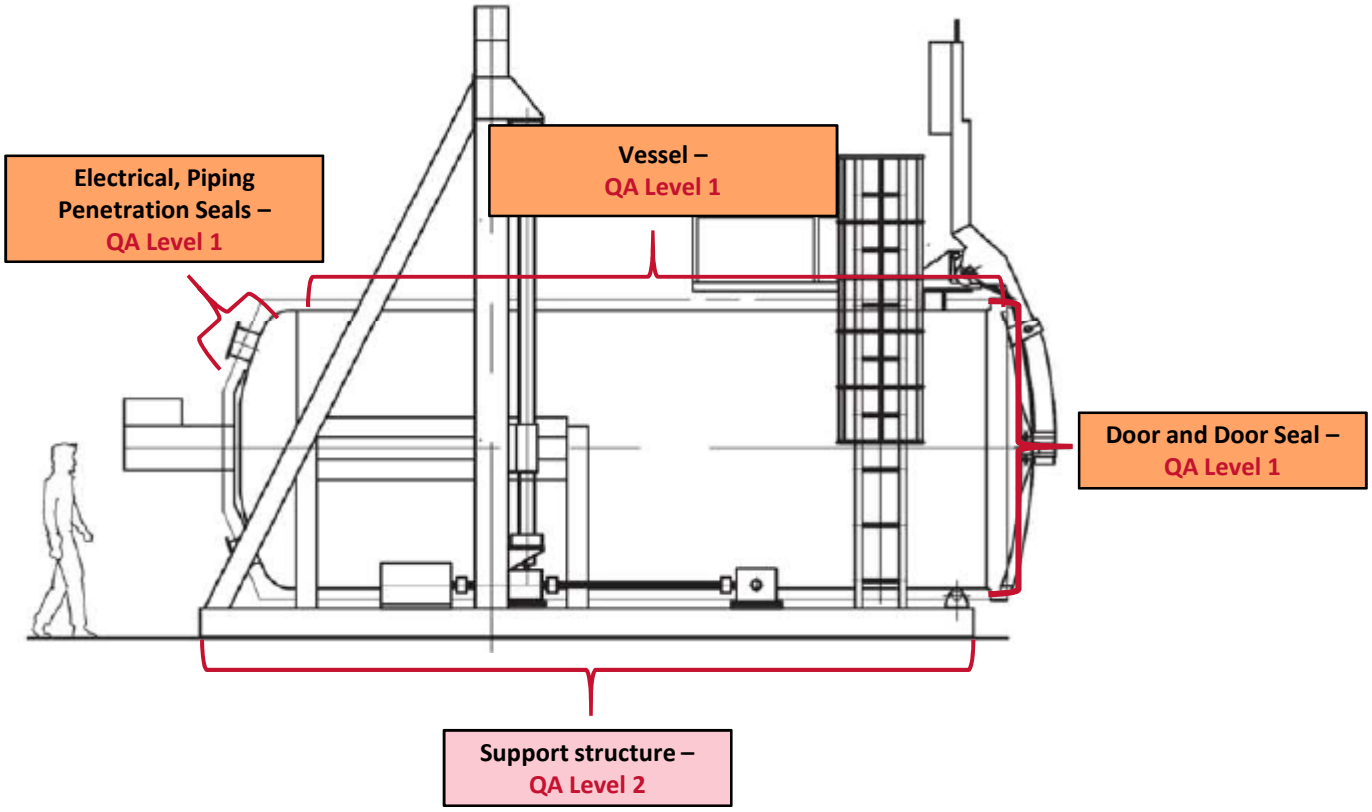
Example for Autoclave Components within IROFS Boundary for Leak Tight Integrity (IROFS24)



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Example for Autoclave Components within IROFS Boundary for Leak Tight Integrity (IROFS24)

Item/Activity	QA Level 1	QA Level 2
Supplier Qualification		
Autoclave Manufacturer	Per QAPD 7.4.1, e.g., audit of supplier's ASME code certification by procuring entity	*N/A, follow QA Level 1*
Acceptance of Items		
Autoclave pressure leak tight integrity boundary	QA records per QAPD 7.4.6, e.g., C of C from manufacturer to procuring entity and at least one of following by procuring entity: • Source verification • Receiving inspection	*N/A, follow QA Level 1*
Autoclave support structure	*N/A, follow QA Level 2*	Similar to Steel example on previous slide
Final Package (Manufacturer certification to purchasing entity will also include other QA records such as inspection reports, test reports, etc.)	QA Level 1 portions listed above	QA Level 2 portions listed above

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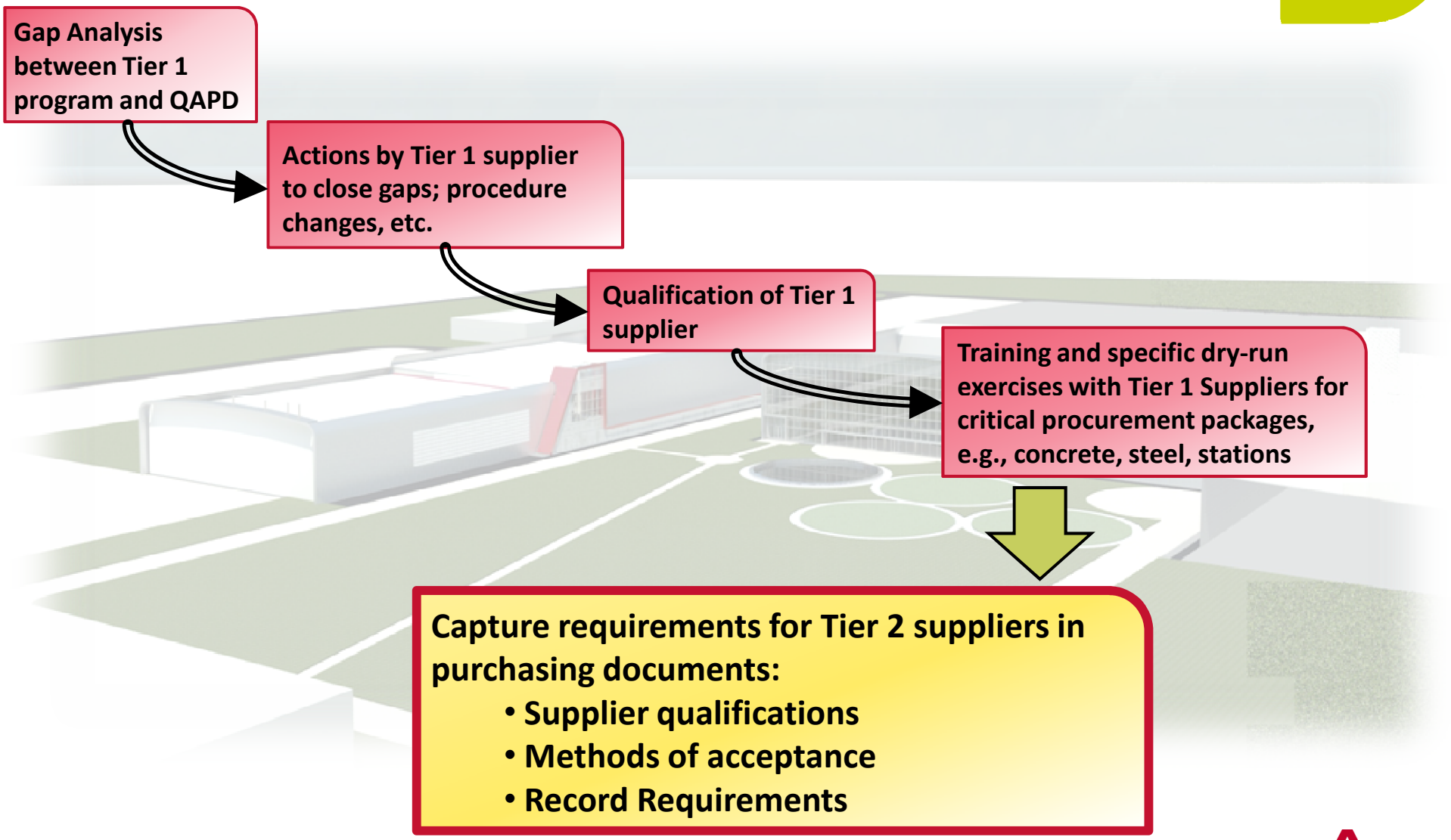
Implementation of AES QAPD



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