

Introduction to Welding Implementation System in BOP Items



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Contents

- 1** Laws and Code Requirements
- 2** Process to Achieve Welding Quality
- 3** Quality Inspection/Testing Activities
- 4** Localization Plan

Part

1

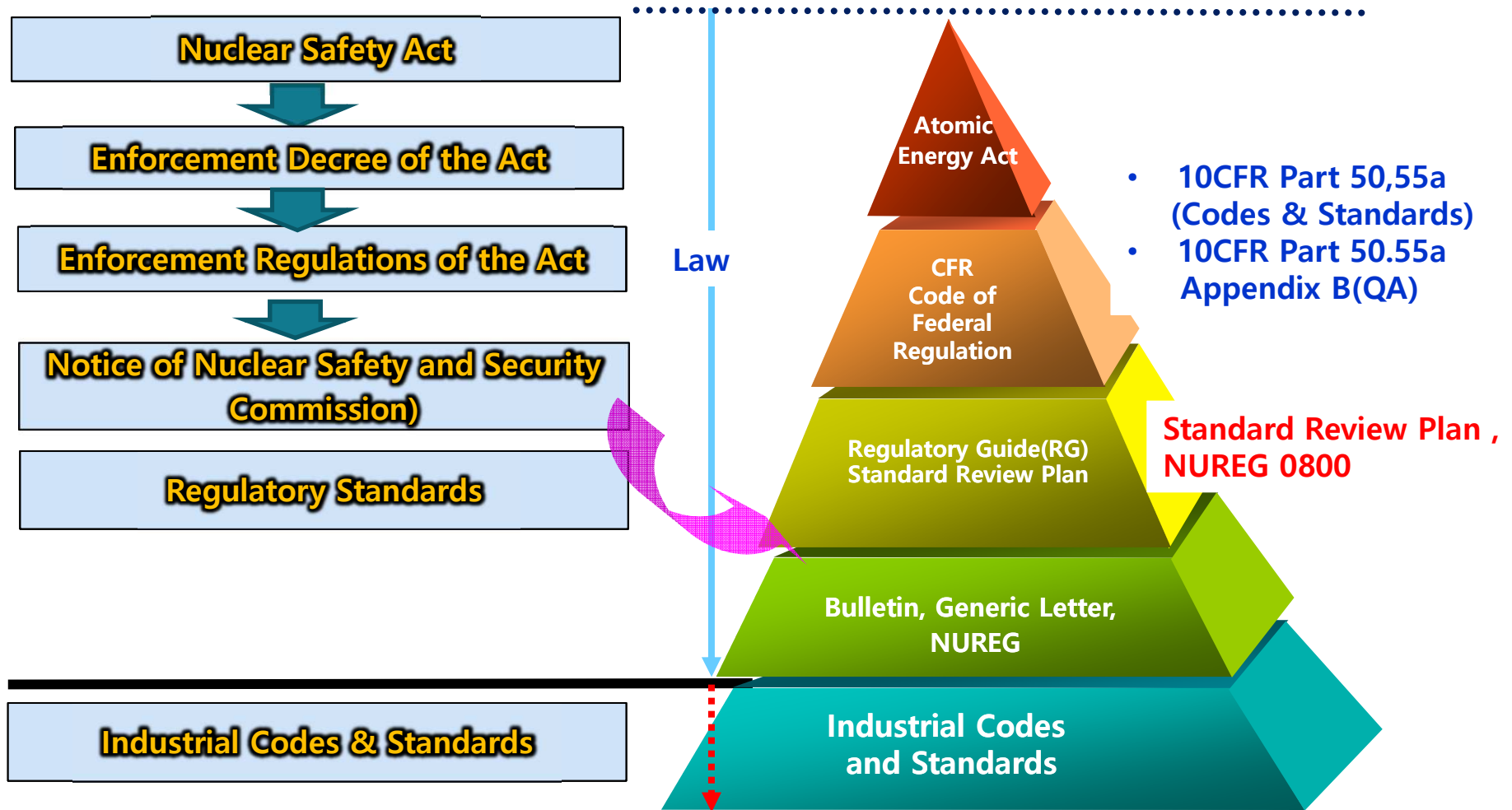
Legal and Code Requirements

- Corresponding laws and regulations
- Codes & Standards of BOP Packages
- Correlation between Licensing & Procurement



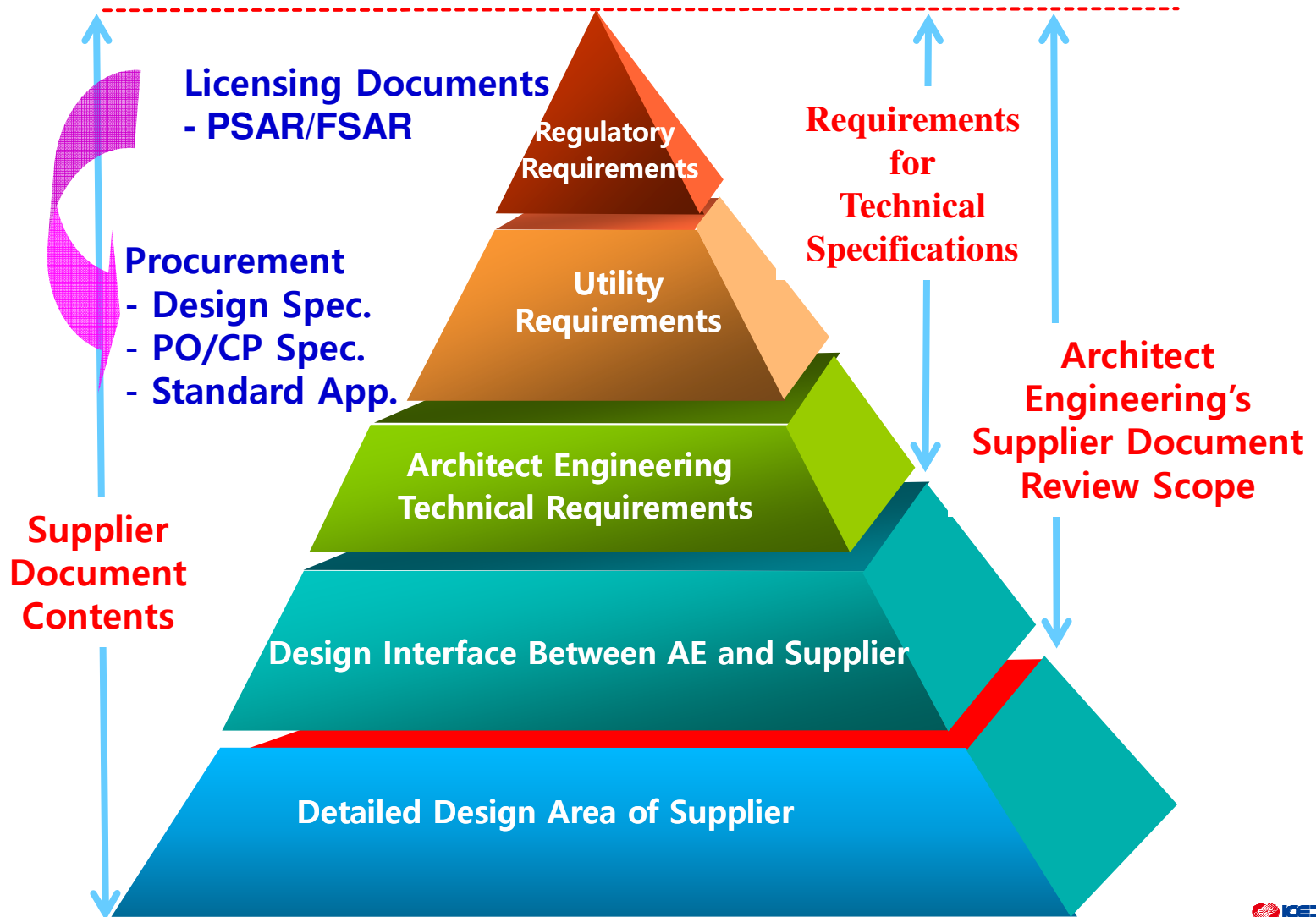
Corresponding laws and regulations

Comparison of KOREA VS. USA



Correlation between Licensing & Procurement

Role and responsibility



Primary Regulatory Guides Related to Welding

- RG 1.28 "Quality Assurance Program Criteria(Design and Construction)"
- RG 1.31 "Control of Ferrite Content in Stainless Steel Weld Metal"
- RG 1.43 "Control of Stainless Steel Weld Cladding of Low-Alloy Steel Components"
- RG 1.44 "Control of the use of Sensitized stainless Steel"
- RG 1.50 "Control of Preheat Temperature for Welding of Low-Alloy Steel"
- RG 1.71 "Welder Qualification for Areas of Limited Accessibility"
- RG 1.84 "Design, Fabrication, and Materials Code Case Acceptability, ASME Sec.III"
- RG 1.147 "Inservice Inspection Code Case Acceptability, ASME Sec.XI, Division 1"

Part 2

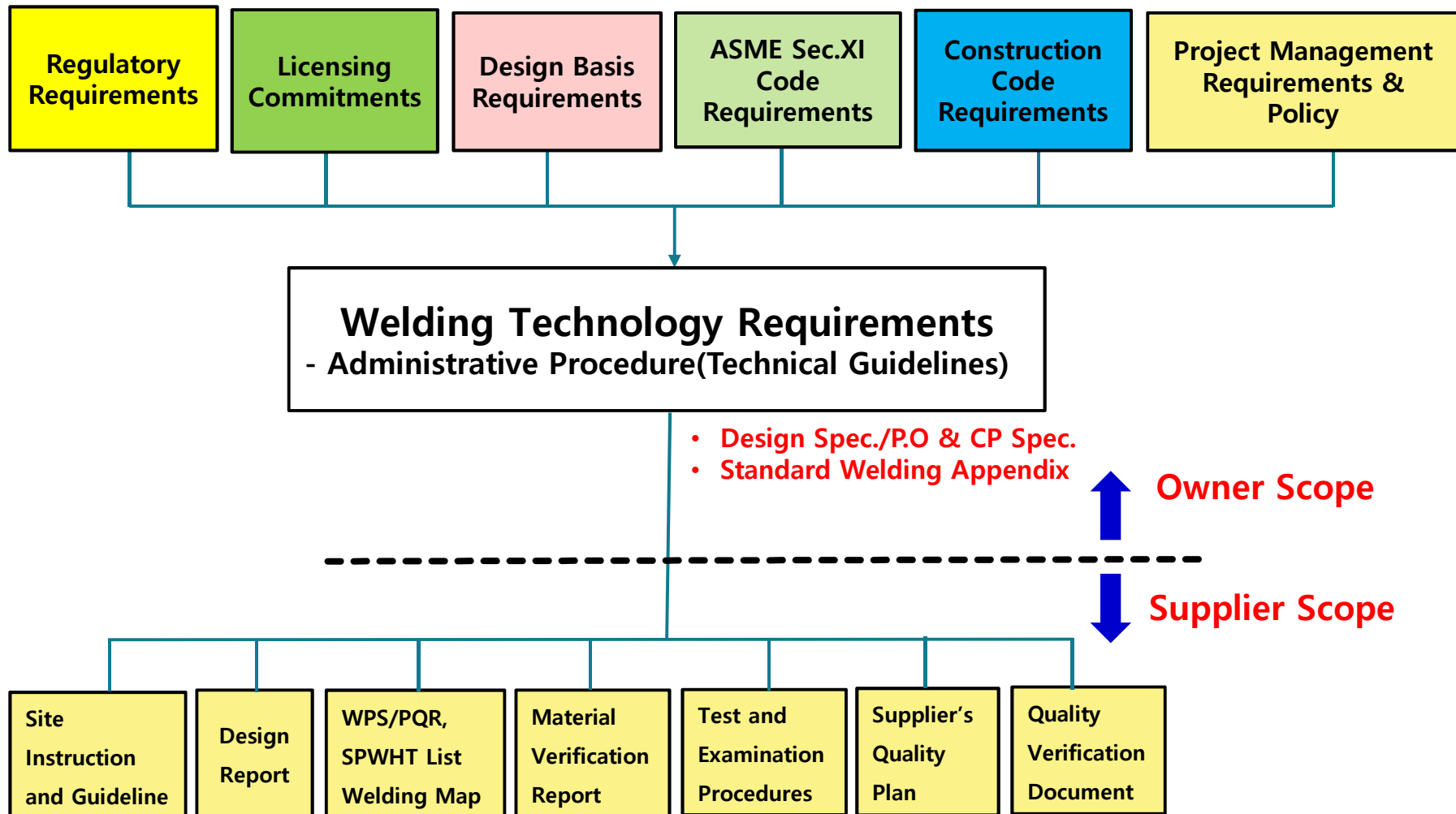
Process to establishment of the welding requirements

- Schematic processes overview of Welding
- Overview of primary welding implementation system
- Process of Procurement



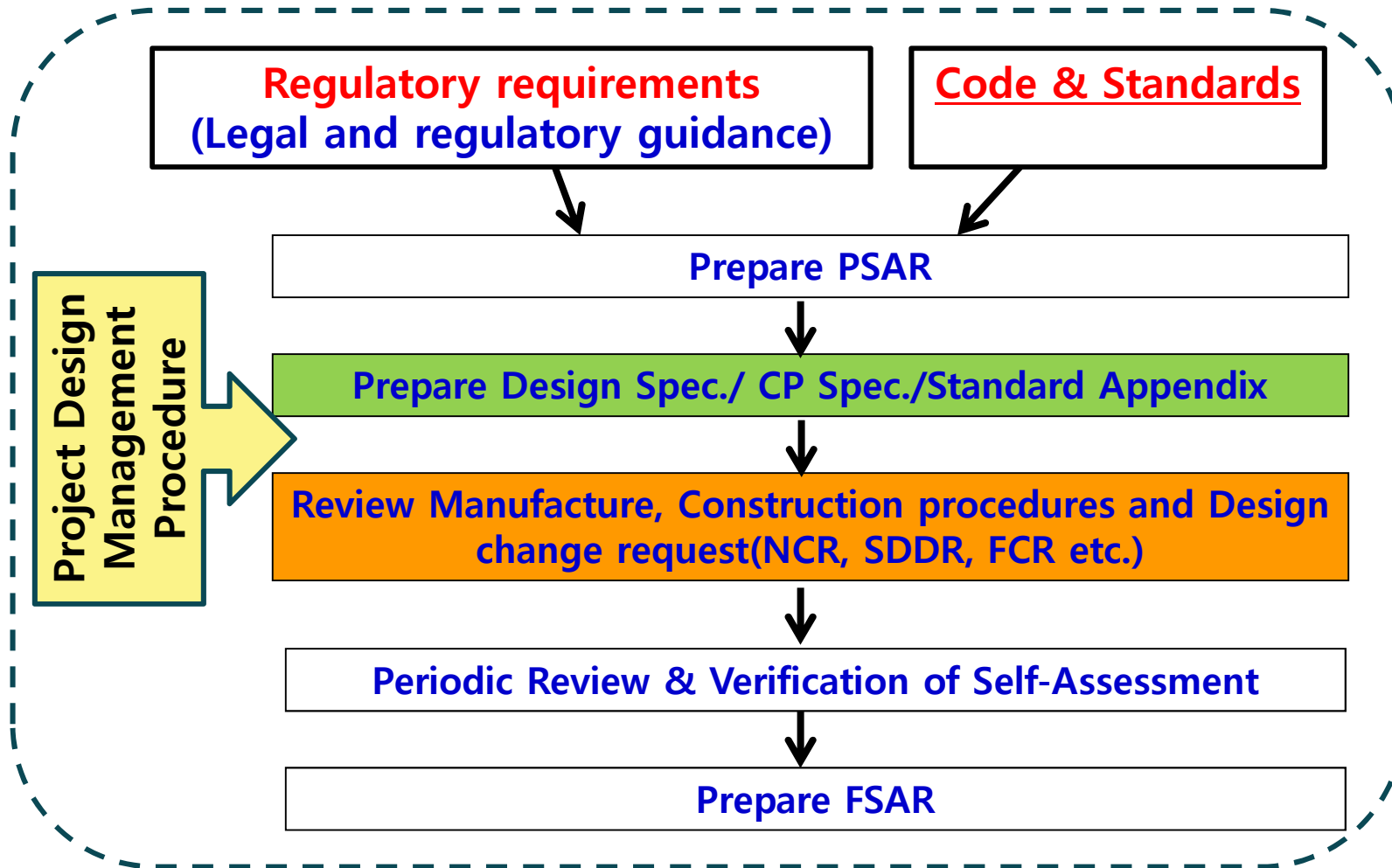
Overview of primary welding implementation

Classification of Duties(Owner vs. Contractors)

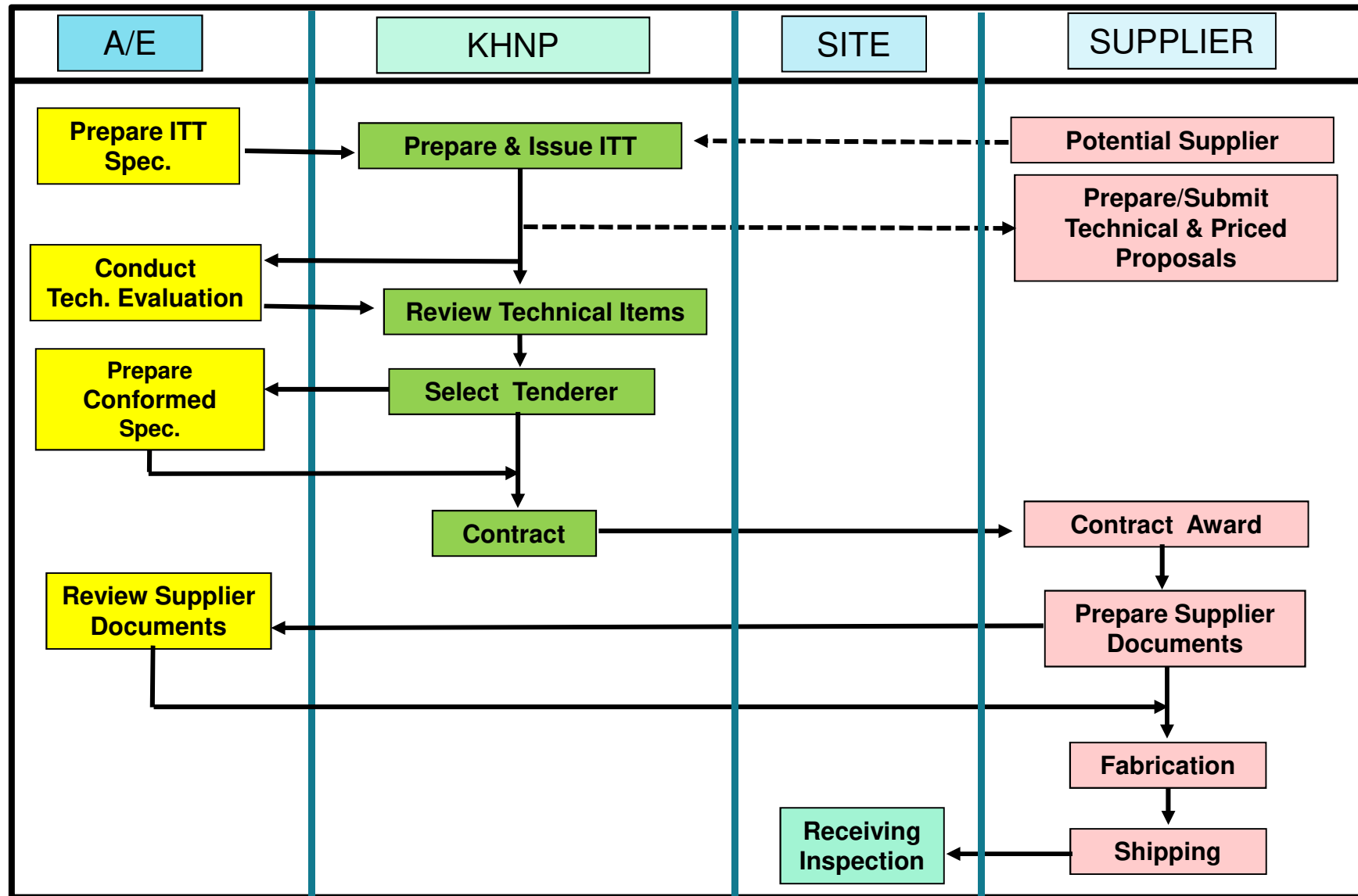


Overview of primary welding implementation

Establishment of the welding requirements(Owner)



Process of Procurement



Part 3

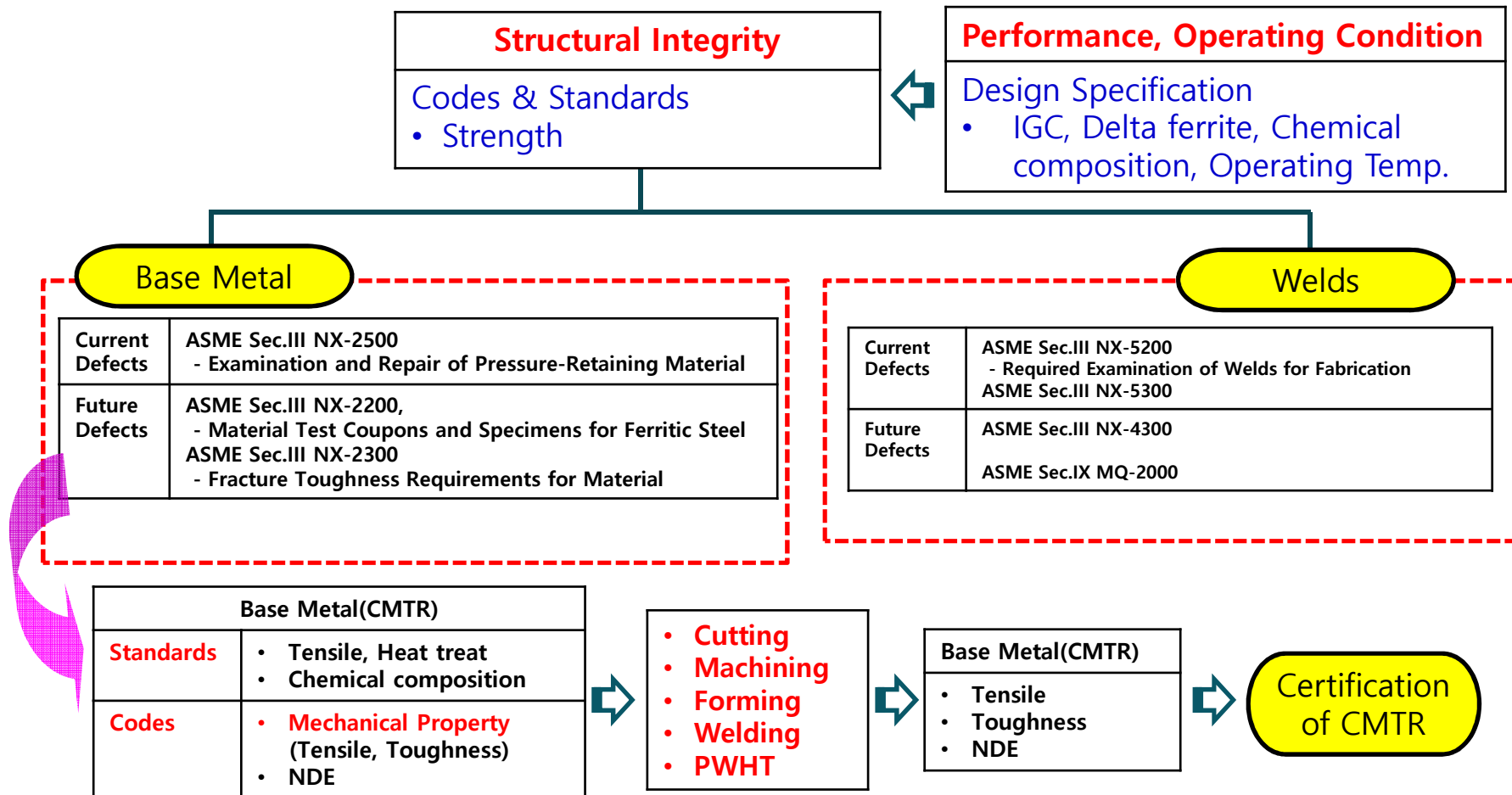
Quality Inspection/Testing Activities

- Quality Control Activities



Quality Control Activities

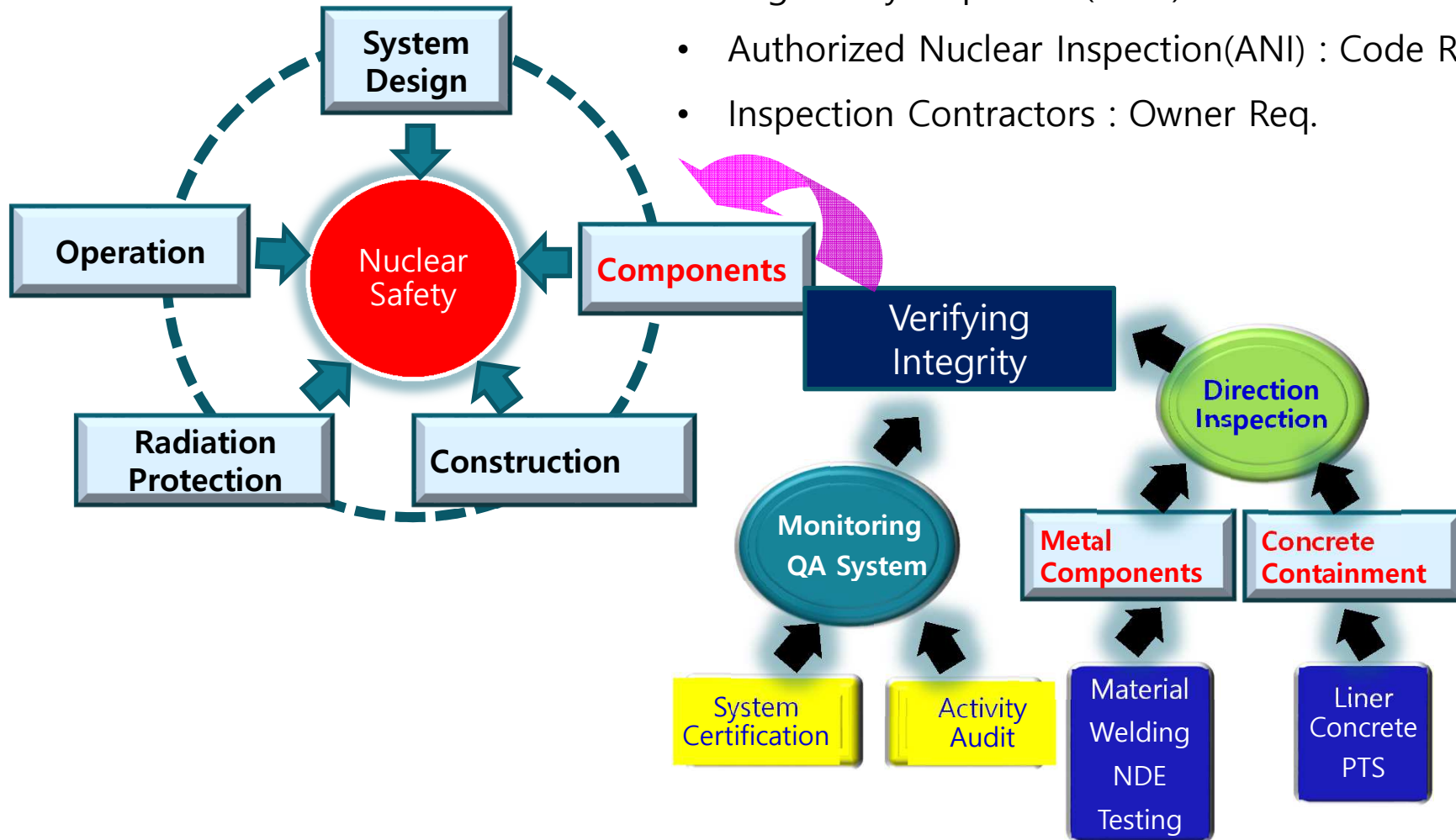
Control of Quality Records



Quality Control Activities

Verifying Integrity of Components

- Regulatory Inspection(KINS)
- Authorized Nuclear Inspection(ANI) : Code Req.
- Inspection Contractors : Owner Req.



Part 4

Localization Plan

- Case Study of Use by a Local Companies
- Conclusive Remarks



Case Study of Use by a Local Companies

Quality Surveillance Activities

Quality Surveillance	Major Objects (Items)	Participation Areas (to be localized)	Responsible Organization
Authorized Nuclear Inspection(ANI)	Safety class	<ul style="list-style-type: none"> • Manufacturing • Construction • OM 	<ul style="list-style-type: none"> • Government or • Government Funded Inspection Agency or • Specialized Agency(KINS)/일본
Authorized Inspection(AI)	Safety or Non-safety class	<ul style="list-style-type: none"> • Manufacturing, Equip. Replace • Construction 	<ul style="list-style-type: none"> • Inspection Agency
Owner Inspection	All Class	<ul style="list-style-type: none"> • Manufacturing • Construction • OM 	<ul style="list-style-type: none"> • Inspection Contractor

Welding Activities

- **Participation Areas(to be localized)**
 - Site design, procurement and construction process including supporting manpower

Case Study of Use by a Local Companies

Step by Step Approach for Localization

- Gradual increase with a long term program designed for manufacturing supply chain companies wanting to work in nuclear
- Identify strategy, implement new processes, secure necessary accreditations and provide supplier matching opportunities.

Localization Plan

- Services such as inspection and welding work.



■ Potential Collaboration of Experiences & Capability

- We will maximize participation of local suppliers into areas **such as welding and quality surveillances** with optimized localization program, based on our experiences gained from OL4 project and other European projects.
- We will design a roadmap that strategically selects a target tasks that can be performed by local companies and bring how to participate.
- We are ready to share the experience in technology self-reliance of Korea. Specifically, it will be subject to design, manufacturing, and construction.

Thank you !
감사합니다!