

Change Management Process in PMIS for Small Modular Reactor

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1. Development of DMS (PMIS) for Nuclear Reactor Construction Project

Small Modular Reactor

설계문서

문서보관함 > 설계문서

초월일자: ~ 1개월전 3개월전 6개월전

문서번호: 문서제목

작성부서: 작성자

내부문서 외부문서

내부문서 목록 (1006 건)

↑	문서번호	개정번호	문서제목	최신본 여부	설계 수준	안전 등급	품질 등급	작성부서	작성자	발행일	RPE 여부	병합 문서
	K-408-KS-316-004	0	진열관 다중파단사고 해석	O	DDS 3	N/A	N/A	안전해석	이귀필	2021.03.29		
	P-000-KV-421-004	0	사업 문서번호체계 절차서	O	N/A	N/A	N/A	사업관리	박국남	2018.10.15		
	P-000-KW-499-001	0	ARA연구로 용어집	O	N/A	N/A	N/A	플랜트종합		2021.03.18		
	P-001-KV-420-020	0	PPM-사업운영	O	N/A	N/A	N/A	사업관리				
	P-001-KV-420-024	0	PPM-보안 관리	O	N/A	N/A	N/A	사업관리				
	P-001-KV-420-030	0	PPM-문서관리	O	N/A	N/A	N/A	사업관리				
	P-001-KV-420-035	1	PPM-사업번호체계	O	N/A	N/A	N/A	사업관리				
	P-001-KV-420-035	0	PPM-사업번호체계	N/A	N/A	N/A	N/A	사업관리				
	P-001-KV-420-050	0	PPM-설계관리	O	N/A	N/A	N/A	사업관리				
	P-001-KV-420-071	1	PPM-공정관리	O	N/A	N/A	N/A	사업관리				

Jordan Research & Training Reactor

검색조건

발행기간: 10-01-01 ~ [2021-09-1] 1개월전 3개월전 6개월전

서류번호: 제목

부서/기관: 작성자

내부서류 외부서류

조회건수: 1963 건

서류번호	제목	작성부서	작성자	개정번호	발행일	QA 기록	검류 파일	완료 P...	FINAL
JR-350-KM-418-002	Guidelines for Maintenance of Special Tools	기계설계	류명환	1	2016-05-25	Y			
JR-350-KM-416-001	Design Specification for Special Tools	기계설계	류명환	4	2016-05-25	Y			
JR-331-KF-418-002	Operation Guideline for Primary Cooling S...	유체계통	서경우	1	2016-05-25	Y			
JR-331-KF-418-001	Test Guideline for Primary Cooling System	유체계통	서경우	1	2016-05-25	Y			
JR-100-KS-418-002	Test Guideline for a Loss of PCS Flow	안전해석	전인석	2	2016-05-25	Y			
JR-350-KM-418-001	Guidelines for Operation of Special Tools	기계설계	류명환	1	2016-05-25	Y			
JR-350-KM-413-001	Design Requirements for Special Tools	기계설계	류명환	2	2016-05-25	Y			
JR-139-KF-416-002	Design Specification for PCS Discharge H...	유체계통	윤원기	3	2016-05-25	Y			
JR-665-KJ-416-001	Design Specification for Information Proc...	계측제어	박재관	2	2016-05-23	Y			
JR-665-KJ-415-001	Interface Requirements for Information ...	계측제어	박재관	2	2016-05-23	Y			
JR-131-KF-416-001	Design Specification for PCS Pump	유체계통	윤원기	3	2016-05-23	Y			

KiJang Research Reactor

문서번호: 부서/기관

제목: 폐기구분

작성부서: 작성자

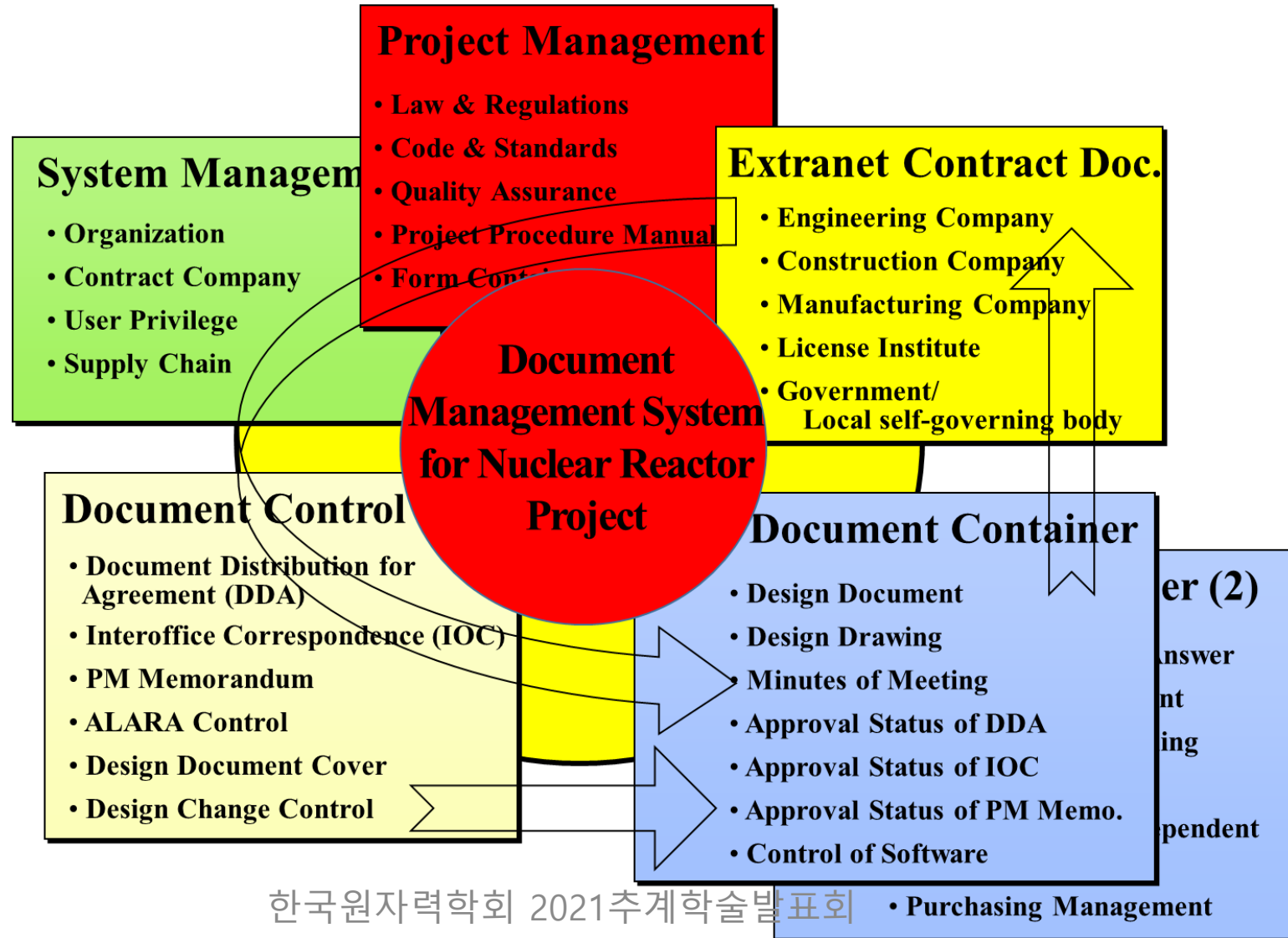
내부문서 외부문서

조회건수: 639 건

설계/확인 상태	품질 등급	제목	R&A Sheet 관제선 변경여부	작성부서	작성자	개정번호	발행일	QA 기록	RPE 여부	문서 (PDF)
T	중	Design R...	N	수조 및 주요기...	정광섭	0	2020-12-17	Y	N	
		System ...	N	기계설계	이효광	1	2020-12-16	Y	N	
		FM 표적 ...	N	핵연료설계	이강희	0	2020-12-14	Y	N	
		FRS 개량 ...	N	기계설계	선종오	0	2020-12-10	Y	N	
		KA-415-001 Interface...	N	수조 및 주요기...	최진복	0	2020-12-04	Y	N	
		KJ-033-KC-387-045 FM 표적 ...	N	노심설계	윤민	P0	2020-12-02	Y	N	
		KJ-079-KS-388-001 Request ...	N	안전해석	박종필	1	2020-12-02	Y	N	
		KJ-331-KF-390-007 Design C...	N	유체계통	정민규	0	2020-12-02	N	N	
		N/A KJ-455-KC-384-001 PTS 조사...	N	노심설계	박지성	0	2020-11-30	Y	N	
		N/A KJ-445-KC-384-002 HTS 조사...	N	노심설계	박지성	0	2020-11-26	Y	N	

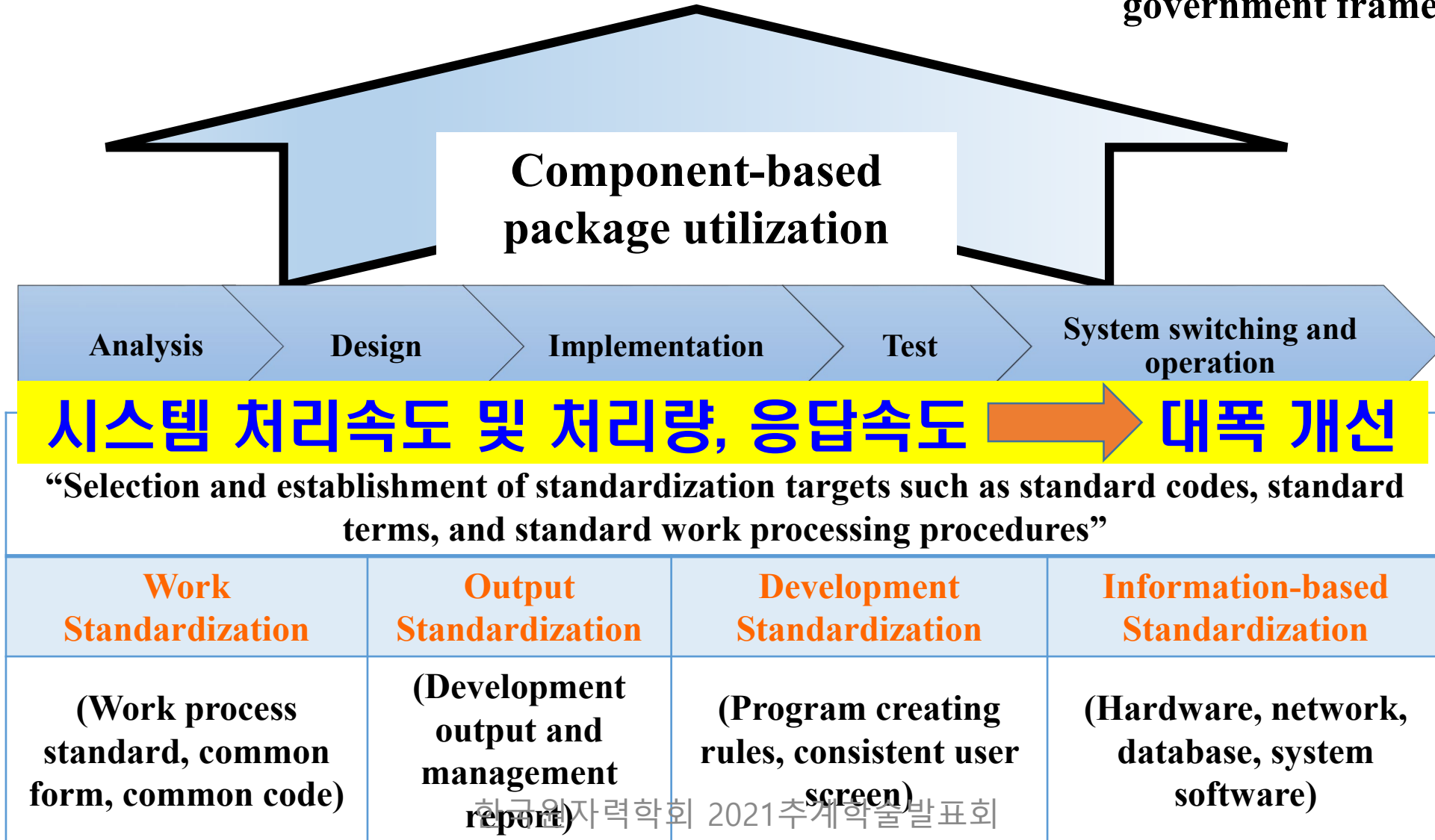
2. Advantage of the Document Management System

1. Convenience



2. Advantage of the Document Management System

2. Extensibility → “Establish a standardized service provision system based on the e-government framework”



2. Advantage of the Document Management System

4. Understanding → User Friendliness & Work Efficiency Improvement

The screenshot displays the KAERI Document Management System (문서관리시스템) interface. The top navigation bar includes '문서관리시스템', '사업관리', '품질보증', and '문서관리'. The main content area is titled '해결결과승부' (Resolution Result Approval) and shows a breadcrumb path: '문서관리 > DDA > 내부기술문서 > 해결결과승부'. Below this, there are search filters for '조회일자' (Search Date) and a search button. The interface is divided into two main sections: '검토문서목록' (Review Document List) and '검토부서' (Review Department).

검토문서목록 (Review Document List)

문서번호	개정번호	문서제목	첨부파일	전체의견보기
P-001-KV-420-0...	1	PPM-공정관리		

검토부서 (Review Department)

검토부서	검토일자	동의일자	확인일자	DDA 보기
유체계동설계	2020-11-19	N/A	2020-11-19	
기계설계	2020-11-25	N/A	2020-11-26	
주요기기설계	2020-11-26	N/A	2020-11-26	
계측제어설계	2020-11-25	N/A	2020-11-26	
연료설계		N/A		
연료제조		N/A		

검토의견 (Review Comments)

더블클릭하여 조치내용을 입력 후 내용을 승부 해주세요.

검토순번	주요 검토의견	검토의견 등록일자	검토의견 첨부파일	조치내용	조치일자	조치내용 첨부파일	진행상태
1	검토의견 없음.	2020-12-01		박국남 : 감사합니다.	2020-12-01		검토완료

Configuration Management Main Page in the DMS

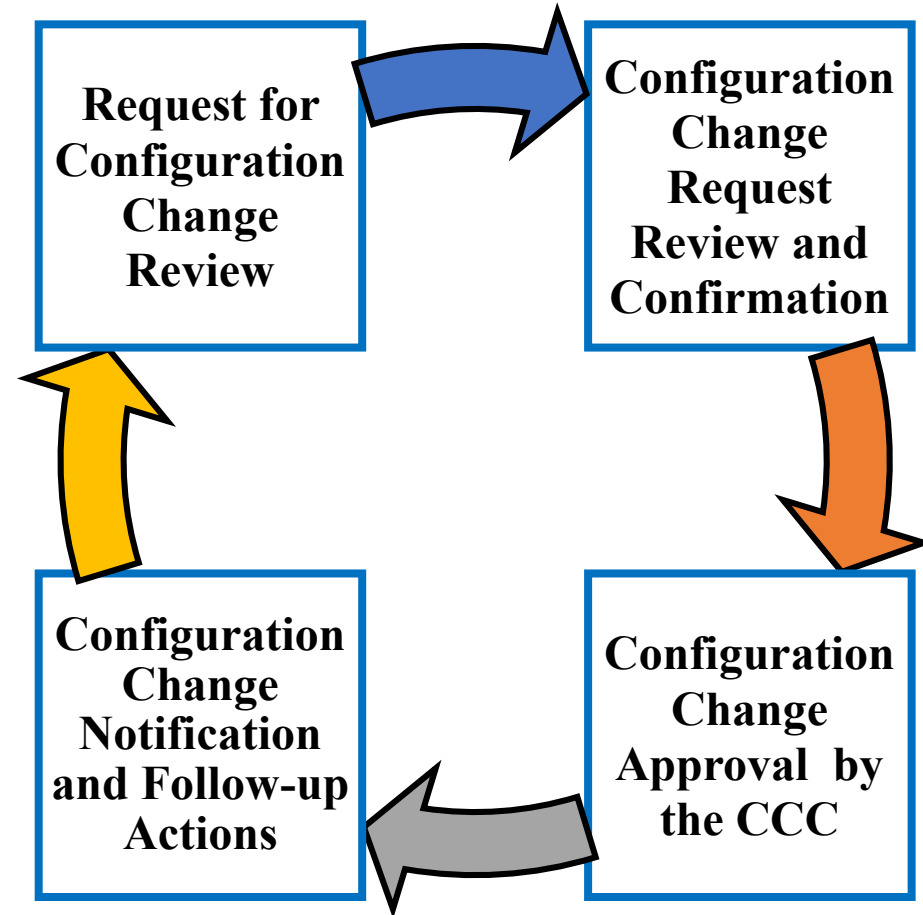
	Pro. Manage. Quality Assur.	Document Management	Document Container	Configuration Management	Etc. Docu. Container	Bulletin
Change Management						
Design Change						
Fabrication/ Contract Change						
Construction Change						
Change in Operation						
Requirement Manage.						
Information Manage.						
Interface Manage.						

When a configuration management menu is added inside the document management system, the user handles all tasks in one site.

3. Function Lists of Technique for Change Management [from [2], CM in NPP, IAEA-TECDOC-1335]

- 1) Maintain the conformance of 3 elements (Design requirement, Physical configuration, Facility configuration information)
- 2) Analysis and documentation of planned change
- 3) Change process based on safety, regulations, economics
- 4) Engineering analysis such as Probabilistic Safety Assessment (PSA) and Probabilistic Risk Assessment (PRA)
- 5) Linkage and Control with cost and schedule
- 6) Traceability

4. Change Management Process



4.1 Request for Configuration Change Review

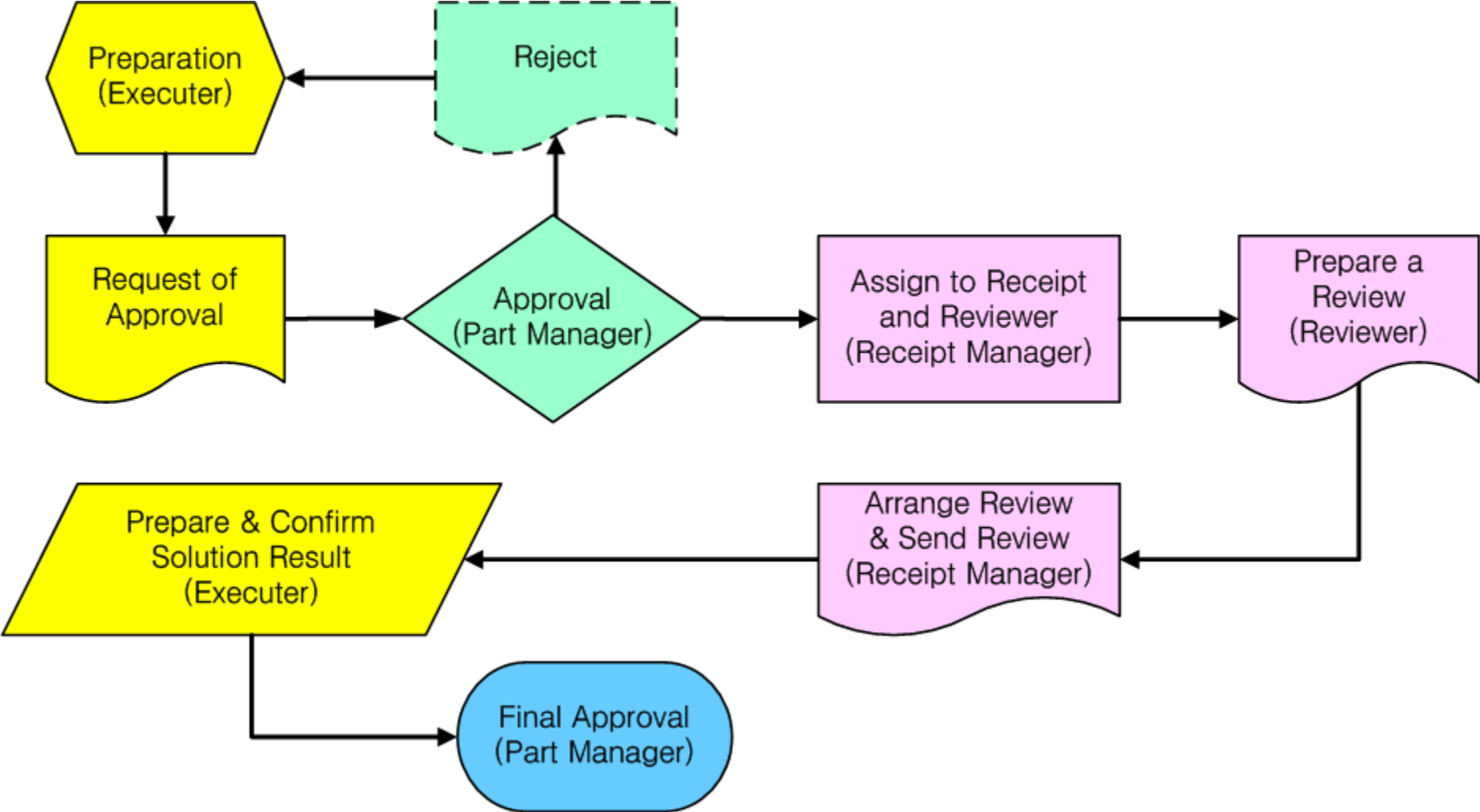
- **CM> CCRR> Preparation> Registration**

1. Select DD to change: Date of issue, Document number, Revision number, Title, Safety class, Seismic class, Quality class
2. Summary of design change and changes/ attach the change document
3. Automatic distribution selection

- **CM> CCRR> Distribution approval**

1. Distribution approvers can add/ delete distribution destination

Document Distribution for Agreement



4.2 Configuration Change Review

- **CM > CCRR > Designate Reviewers**

1. The review part manager inquires the parts and requirements.

2. The part manager can add/ delete reviewers before collecting review opinions.

- **CM > CCRR > Review**

- **CM > CCRR > Collect review opinions**

- ▷ Agree, Disagree, Reviewal

- **CM > CCRR > Prepare solution result**

4.3 Configuration Control Committee (CCC) and Configuration Change Approval

- **CM> CCRR> CCC> Appointment of Commissioner**

1. Commissioners can inquire and confirm the review opinions of the distribution parts.

- **CM> CCRR> CCC> Commissioner review**

1. Inquire the document to the reviewed in the configuration change review request.

2. Commissioners can register, modify and save review opinions in the system.

- **CM> CCRR> CCC> Gathering and approval of opinions**

1. The CCC confirms the review opinion

2. The CCC can automatically collect opinions and approve the results.

4.4 Approved Configuration Change Notice and Follow-up Action

- **CM > CCRR > Change notice**

1. Automatic notification of use of design document information

2. Notification recipients can be added.

3. Permission to prepare notices:

The design engineer & part manager of preparation.

- **CM > CCRR > Follow-up action**

1. Consideration of opinions, plans, and impact documents according to design change approval.

5. Conclusion

1. 연구용 원자료와 소형로 건설사업 문서관리시스템 개발을 통한 기술 축적
2. 편리함, 성능, 문서보안 및 사용자 중심의 시스템 구현
3. 안정된 문서관리시스템 위에 형상관리(변경관리) 기능 구현
4. 형상변경 검토 요청, 형상변경 검토, 통제위원회와 형상변경 승인, 형상변경 공지 및 후속조치 등 절차 확립
5. 변경관리 프로세스 상세화 및 화면설계를 통한 시스템 구현
6. 실제 운영된 후 사용자 의견 수렴과 개선을 통해 적정한 성능의 형상관리시스템 구축 예상