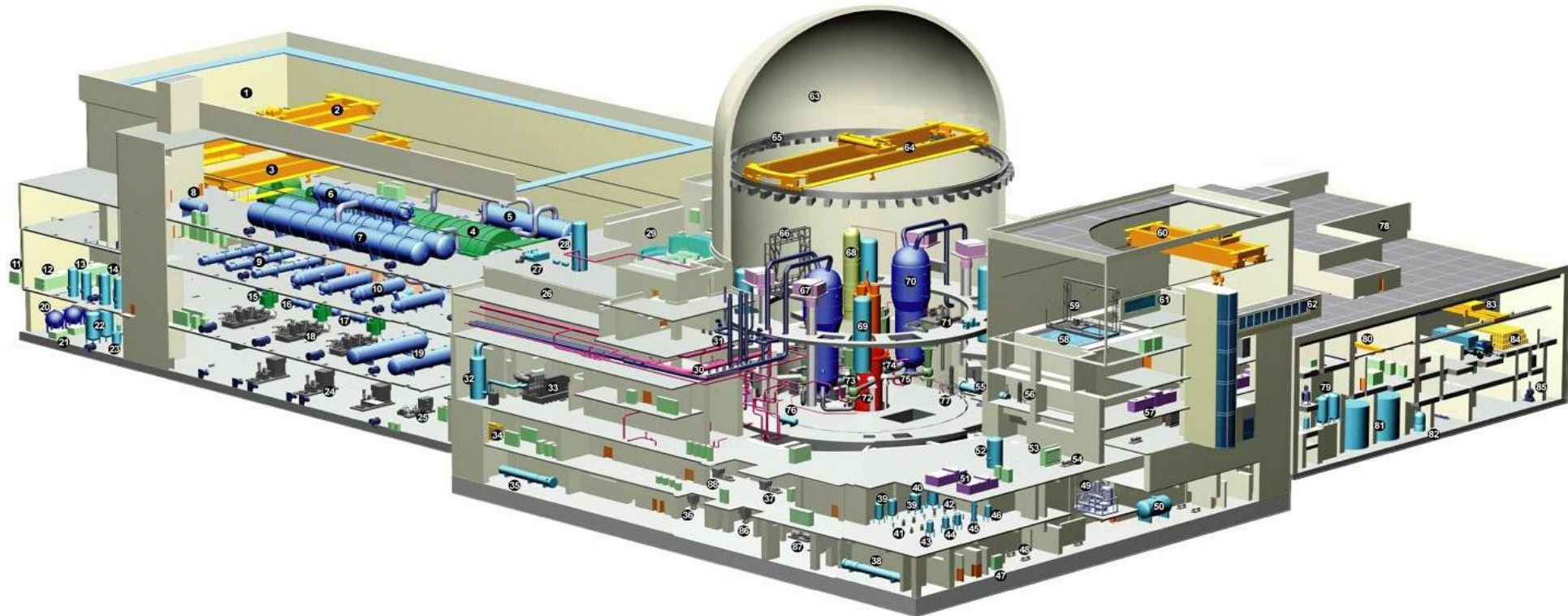




Fuel Handling Equipment Delivery Records

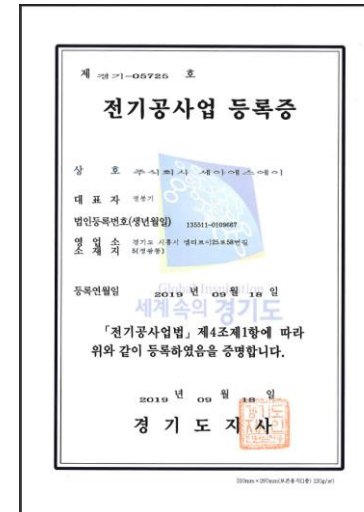
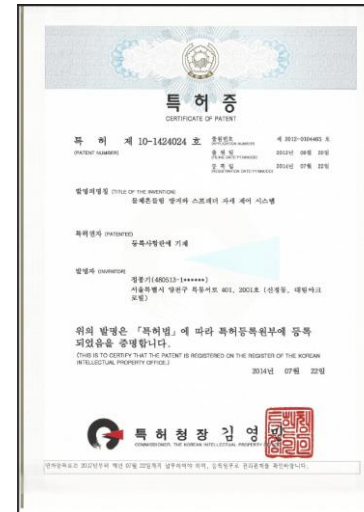
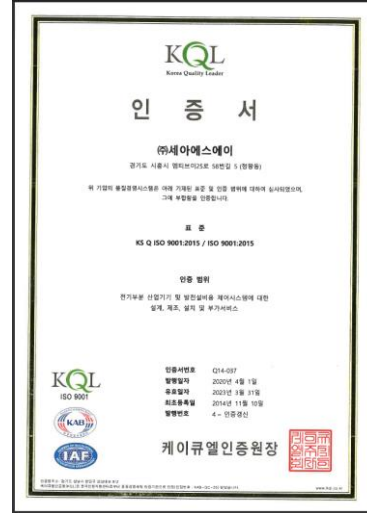
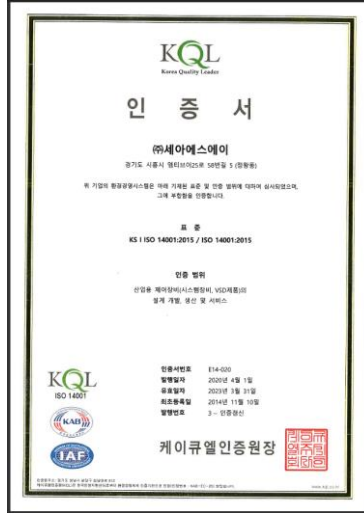
Date of Order	Ref no.	Project	Manufacturer	User	Electrical drawing	Program (PLC/HMI)	Control panel	Commissioning
05/1999	1999HO011	125/5 Ton FUEL BUILDING CRANE, Yeongkwang Nuclear Power Plant Unit # 5,6 (manual crane for cask-handling)	Hankook Heavy Ind.	KEPCO	O	O	O	O
05/2000	2000HO007	10TON SRS CRANE, Yeongkwang Nuclear Power Plant Unit #5,6 (3-stage DRUM lifting equipment for low-level radioactive waste)	Hoist Bando	KEPCO	O	O	O	O
11/2001	2001HO115	125/5TON Fuel Building Crane, Uljin Nuclear Power Plant Unit #5,6 (manual crane for cask-handling in fuel building)	Hankook Heavy Ind.	KEPCO	O	O	O	O
03/2002	2002HO105	Uljin Nuclear Power Plant Unit #5,6 10TON SRS CRANE (3-stage DRUM lifting equipment for low-level radioactive waste)	Hankook Heavy Ind.	KEPCO	O	O	O	O
11/2002	2002HO121	230/65TON TURBINE CRANE, Yeongkwang Nuclear Power Plant Unit # 1,2 (turbine transfer crane)	Doosan Heavy Ind.	KHNP	O	O	O	O
10/2005	2005HO121	10TON SRS CRANE, Yeongkwang Nuclear Power Plant Unit #1,2 (3-stage DRUM lifting equipment for low-level radioactive waste)	Hyosung CNP	KHNP	O	O	O	O
12/2005	2005RD110	ADVANCED FUEL MACHINE DEVELOPMENT, Yeongkwang Nuclear Power Plant (Fuel Handling Equipment retrofitting service: RM(Refueling Machine), FTS (Fuel Transfer System), SIMULATOR, SUPERVISORY	Doosan Heavy Ind.	KHNP	O	O	O	O
08/2006	2006HO108	250/50Ton Main Turbine Crane, Shin-Wolsong Nuclear Power Plant (Turbine transfer crane)	Hyosung CNP	KHNP	O	O	O	O
08/2006	2006HO108	40/12 Ton Intake Gantry Crane, Shin-Wolsong Nuclear Power Plant (Power station Yard crane for water treatment and material management)	Hyosung CNP	KHNP	O	O	O	O
08/2006	2006HO108	10Ton SRS Bridge Crane, Shin-Wolsong Nuclear Power Plant (3-stage DRUM lifting equipment for low-level radioactive waste)	Hyosung CNP	KHNP	O	O	O	O
09/2007	2007HO113	125/5Ton fuel Building Crane, Shin-Wolsong Nuclear Power Plant Unit #2 (manual crane for cask-handling in fuel building)	Hyosung CNP	KHNP	O	O	O	O
04/2008	2008HO116	475+475/90Ton Polar Crane, Shin-Wolsong Nuclear Power Plant Unit #3,4 (circular bridge crane for work inside nuclear reactor dome)	Doosan Heavy Ind.	KHNP	O	O	O	O

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08/2008	2008HO118	310/70Ton Turbine Generator Building Crane, Shingori Nuclear Power Plant Unit #3,4 (power generator turbine transfer crane)	Hyosung CNP	KHNP	O	O	O	O
08/2008	2008HO118	310/70 Ton Turbine Cranex2, , Shingori Nuclear Power Plant Unit #3,4 (turbine Transfer crane)	Hyosung CNP	KHNP	O	O	O	O
05/2009	2009HO117	POLAR CRANE, Uljin Nuclear Power Plant Unit #1,2 (circular bridge crane for work inside nuclear reactor dome)	GS Heavy Ind.	KHNP	O	O	O	O
08/2009	2009HO124	7.5Ton L&M(nuclear waste) Crane, Shin-Wolsong Nuclear Power Plant Unit #1,2 (DRUM lifting equipment for low-level radioactive waste)	Hyosung CNP	KHNP	O	O	O	O
05/2009	2009RD104	FUEL HANDLING EQUIPMENT upgrade, Yeongkwang Nuclear Power Plant Unit # 5,6 (FHE Fuel Recharger(RM), Spent Fuel Handling Machine(SFHM), Fuel Transfer System(FTS), New Fuel Elevator(NFE)	Doosan Heavy Ind.	KHNP	O	O	O	O
04/2010	2010HO101	10TON SRS CRANE, , Shingori Nuclear Power Plant Unit #3,4 (3-stage DRUM lifting equipment for low-level radioactive waste)	Hyosung CNP	KHNP	O	O	O	O
12/2010	2010HO109	FUEL HANDLING EQUIPMENT, Shingori Nuclear Power Plant Unit #3,4 (FHE Refueling Machine(RM), Spent Fuel Handling Machine(SFHM), Fuel Transfer System(FTS), New Fuel Elevator(NFE), CEA-CP, CEAE, SIMULATOR, SUPERVISORY	Doosan Heavey Ind.	KHNP	O	O	O	O
05/2011	2011HO103	FUEL HANDLING EQUIPMENT retrofitting, Uljin Nuclear Power Plant Unit #5,6 (FHE RM, SFHM, FTS, NFE)	Doosan Heavy Ind.	KHNP	O	O	O	O
07/2011	2011HO106	POLAR CRANE, Shin Uljin Nuclear Power Plant Unit #1,2 (circular bridge crane for work inside nuclear reactor dome)	Doosan Heavy Ind.	KHNP	O	O	O	O
10/2011	2011HO114	POLAR CRANE, Uljin 2 Nuclear Power Plant Unit #3,4 (circular bridge crane for work inside nuclear reactor dome)	Doosan Heavy Ind.	KHNP	O	O	O	O
01/2012	2012HO101	150/10Ton Fuel Building Crane, Shingori Nuclear Power Plant Unit #3,4 (manual crane for cask-handing in fuel building)	Hyosung CNP	KHNP	O	O	O	O

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09/2013	2013HO108	FUEL HANDLING EQUIPMENT, Shinhanul Nuclear Power Plant Unit #1,2 (FHE RM, SFHM, FTS, NFE, CEACP, CEAE, SIMULATOR, SUPERVISORY	Doosan Heavy Ind.	KHNP	O	O	O	O
02/2014	2014HO104	Quake-proof TEST CABINET assembly service, Shingori Nuclear Power Plant Unit #5,6	Doosan Heavy Ind.	KHNP	O	O	O	O
08/2014	2014HO122	FUEL HANDLING EQUIPMENT SFHM upgrade, Shingori Nuclear Power Plant Unit #3,4	Doosan Heavy Ind.	KHNP	O	O	O	O
02/2015	2015HO117	Turbine crane control system, Hanbit Nuclear Power Plant Unit #3,4	Sangwon Eng.	KHNP	O	O	O	O
04/2015	2015HO114	MCR Console wiring, Shinhanul Nuclear Power Plant Unit #1	Doosan Heavy Ind.	KHNP	O	O		O
05/2015	2015HO118	MMIS internals maintenance service, Shinhanul Nuclear Power Plant Unit #1,2	Doosan Heavy Ind.	KHNP	O	O	O	O
12/2015	2015HO149	MMIS KINS repairing job on f/b after visual, Shinhanul Nuclear Power Plant Unit #1,2	Doosan Heavy Ind.	KHNP	O	O		O
01/2016	2016HO101	Non-nuclear safe DCP HW maintenance service, Shinhanul Nuclear Power Plant Unit #1,2	Doosan Heavy Ind.	KHNP	O	O		O
05/2016	2016HO104	CV delivery structure crane changing construction, Hanbit Nuclear Power Plant Unit 1	Doosan Heavy Ind.	KHNP	O	O	O	O
07/2016	2016HO110	Non-nuclear safe power station repair service, Shinhanul Nuclear Power Plant Unit #1,2	Doosan Heavy Ind.	KHNP	O	O		O
09/2016	2016HO136	Non-nuclear safe Cable change, Shinhanul Nuclear Power Plant Unit #1,2	Doosan Heavy Ind.	KHNP	O	O		O
03/2017	2017HO103	FUEL HANDLING EQUIPMENT, Shingori Nuclear Power Plant Unit #5,6 (FHE RM), SFHM, FTS, NFE, CEACP, CEAE, SIMULATOR, SUPERVISORY	Doosan Heavy Ind.	KHNP	O	O	O	O

Date of Order	Ref no.	Project	Manufacturer	User	Electrical drawing	Program (PLC/HMI)	Control panel	Commissioning
04/2017	2017HO104	Press machine inspection service, Shingori Nuclear Power Plant Unit #5,6	Doosan Heavy Ind.	KHNP	O			
07/2017	2017HO107	Fuel Handling Equipment(FHE) electric parts TA service, Shinhanul Nuclear Power Plant Unit #1	Doosan Heavy Ind.	KHNP	O	O		O
09/2017	2017HO112	#4 POLAR CRANE, Hanbit Nuclear Power Plant (circular bridge crane for work inside nuclear reactor dome)	Doosan Heavy Ind.	KHNP	O	O	O	O
11/2019	2019HO107	10TON SRS CRANE, Shingori Nuclear Power Plant Unit #5,6 (3-stage DRUM lifting equipment for low-level radioactive waste)	Korea Hoist	KHNP	O	O	O	O
10/2020	2020NHO002	FHE RSC(Reallocated Settlement for a Consumer), Shingori Nuclear Power Plant Unit #3,4	Doosan Enerbility	KHNP	O			
12/2020	2020NHO003	RM Hoist Design ugrade, Shinhanul Nuclear Power Plant Unit #1,2	Doosan Enerbility	KHNP	O	O		O
03/2021	2021NH0325	Electric parts reserve, Hanul Nuclear Power Plant Unit #5,6	Doosan Enerbility	KHNP	O			
06/2022	2022NHO0316	Delivery and service for repair job, Shingori Nuclear Power Plant Unit #3,4	Doosan Enerbility	KHNP	O	O		O
10/2022	2022NHO1004	FHE reserves for operating electric parts, Shingori Nuclear Power Plant Unit #5,6	Doosan Enerbility	KHNP	O			
12/2022	2022NHO1004	FHE TA support service, Shinhanul Nuclear Power Plant Unit #1	Doosan Enerbility	KHNP	O	O		O
03/2023	2023NHO0306	FHE Instrumentation &Control, Shinhanul Nuclear Power Plant Unit #1	Doosan Enerbility	KHNP	O	O		O
05/2023	2023NHO0530	PLC program correction & supplementation (incl. technical support), Saeul 1 Nuclear Power Plant	Doosan Enerbility	KHNP	O	O		O

Certificates of Patent





Thank You