

SPPS

PREQUALIFICATION STATEMENT

Chemical Cleaning & Oil Flushing
Commissioning
Operation & Maintenance
Mechanical & Electrical Works
Rehabilitation for Power Plant



A banner image at the top of the slide showing an industrial facility with various towers and pipes, overlaid with several 3D molecular models of chemical structures.

Greetings

THE Goal of SPPS is

Success and Satisfaction of Customer

SPPS Corp. , based on accumulated a wealth of experience since its foundation, continues to grow with the best recognition as a professional company various construction performance ability and securing excellent experts.

GOOD-SAFETY
CUSTOMER-FIRST
GOOD-ENVIRONMENT

"Customer First" is the philosophy of SPPS Corp." and aims to devote

SPPS Corp., which has grown along with customer, makes an effort to give a customer satisfaction and to contribute to the successful development of the customer.

Thank you

CEO

PAIK YOUNG CHUN 



Company Overview

| | |
|----------------------------------|--|
| Company | SPPS Corporation |
| President | Paik Young chun |
| Date Established | 10 JUNE 2004 |
| Business Registration No. | 136-81-31951 |
| Company Registration No. | 120111-0191718 |
| Headquarters | 222, Gonghang-daero, Gangseo-gu, Seoul, Republic of Korea |
| Telephone | TEL : +82-2-2666-1681,2 FAX : +82-2-2666-1683 E-mail : mail@sejongchem.co.kr |
| Home Page | www.sejongchem.co.kr |
| Capital Stock | USD 900,000 |
| Company's Business | <ul style="list-style-type: none">• Chemical cleaning & Flushing.• Pre-commissioning & Commissioning.• Operation & Maintenance.• Painting & Preservation Work.• Mechanical & Electrical Work• Rehabilitation & Revamping for Electrical Power Plant & Industrial Facilities.. |



Company History

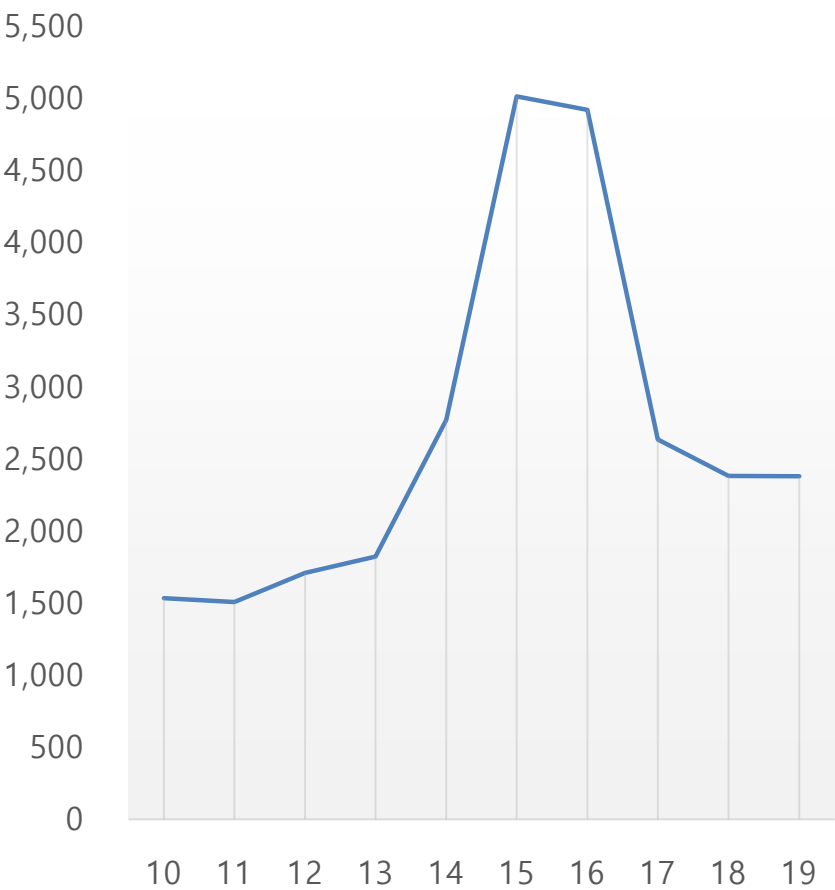
| | |
|------|--|
| 2004 | <ul style="list-style-type: none">• Jun- Establishment of Sejong industry Co.,Ltd.• Nov- Registration of POSCO |
| 2005 | <ul style="list-style-type: none">• Dec-Registration of Hyundai E & C Co.,Ltd |
| 2006 | <ul style="list-style-type: none">• Feb- Registration of Hyundai Heavy Industry Co.,Ltd.• Apr- ISO 9001:2000 & ISO14001:2004• Jun- Registration of Daewoo E & C Co.,Ltd.• Sep- Registration of SK Corp. |
| 2007 | <ul style="list-style-type: none">• Sep- Registration of SKC Company |
| 2008 | <ul style="list-style-type: none">• Nov- Registration for Mechanical Construction License |
| 2009 | <ul style="list-style-type: none">• Sep- Registration of Doosan Heavy Industries & Construction Co., Ltd.• Nov- Registration of SamSung Engineering Co.,Ltd. |
| 2011 | <ul style="list-style-type: none">• Nov- Electrical Construction License• Dec- Registration of KCC Construction Co.,Ltd. |
| 2012 | <ul style="list-style-type: none">• Feb- Name changed from Sejong Industry Company to SPPS Corp.• Nov- K-OHSMS 18001 |
| 2016 | <ul style="list-style-type: none">• Apr- Local incorporation in Vietnam, SVVP VINA |
| 2018 | <ul style="list-style-type: none">• Jan- New CEO in charged as to Mr. Paik Young chun |
| 2019 | <ul style="list-style-type: none">• Jan- Local incorporation in Indonesia, SPI |



Construction Capabilities

Annual Construction Capability

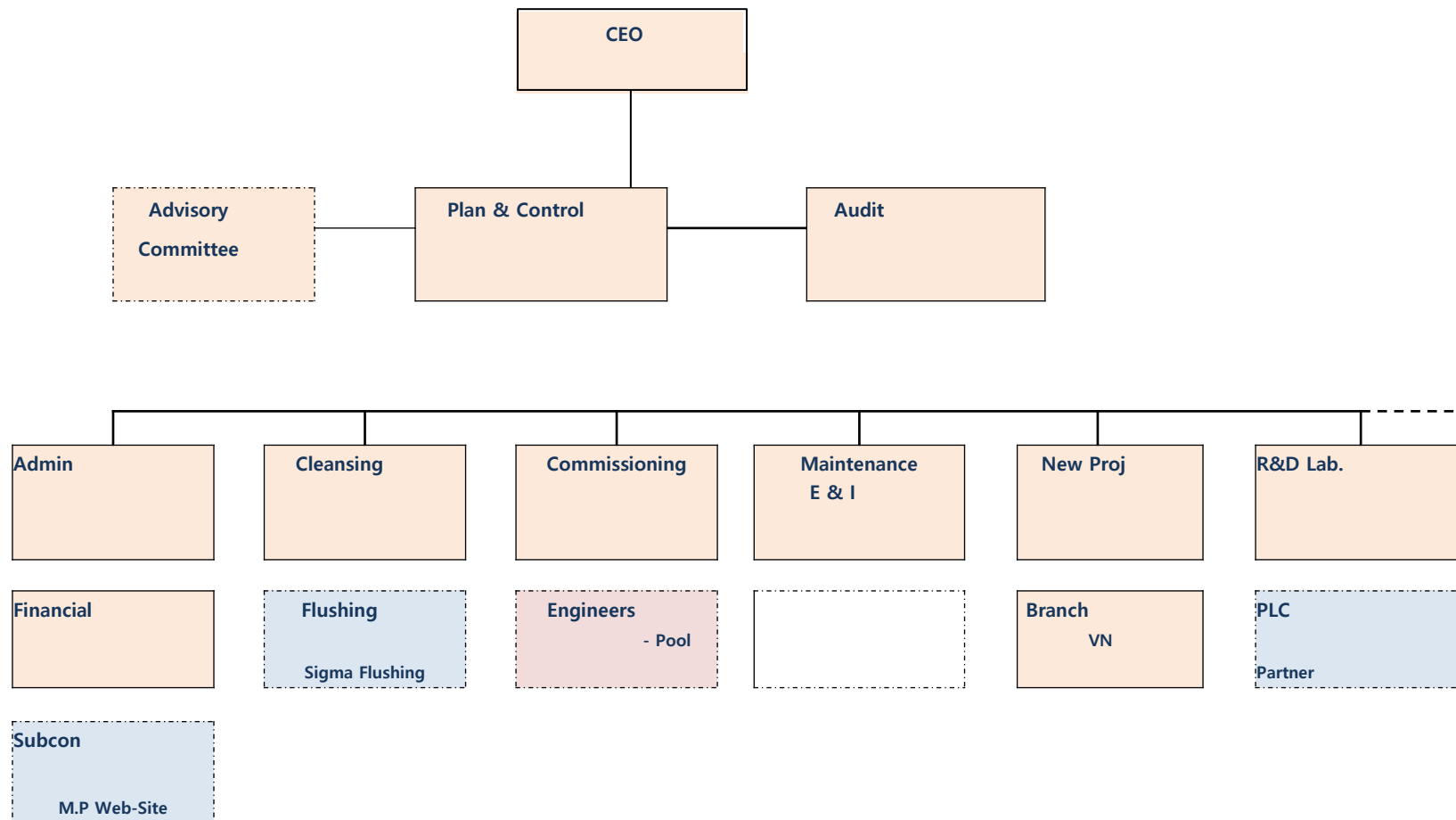
(Unit : USD1,000)



| Year | Type | Amount of the Construction Capability | 비 고 |
|------|--|---------------------------------------|-----|
| 2010 | Certified Construction Business Capability | 1,533 | |
| 2011 | | 1,505 | |
| 2012 | | 1,708 | |
| 2013 | | 1,822 | |
| 2014 | | 2,769 | |
| 2015 | | 5,011 | |
| 2016 | | 4,918 | |
| 2017 | | 2,634 | |
| 2018 | | 2,379 | |
| 2019 | | 2,378 | |

Organization

SPPS Organization Chart



Business Certificate

Business License & Registration for Construction

| | | | |
|--|--|---|---------------------------|
| 발급번호 Issuance number | 사업자등록증명 Certificate of Business Registration (법인사업자) (Corporate Taxpayer) | | 처리기간 Processing period |
| 7544-351-8466-210 | | | 즉시 Immediately |
| 상호(법인명) Name of company | 에스피에스 주식회사 Sejong Power Plant Service Corporation | | |
| 사업자등록번호 Business registration number | 136-81-31951 | | |
| 성명(대표자) Name of representative | 백영춘 PAIK YOUNG CHUN | | |
| 주민(법인)등록번호 Resident(Corporation) registration number | 120111-0191718 | | |
| 사업장소재지 Business Address | 서울특별시 강서구 공항대로 222, 12층 1204호(마곡동, 발산타워) 1204, 222, Gonghang-daero, Gangseo-gu, Seoul, 222, Gonghang-daero, Gangseo-gu, Seoul | | |
| 개업일 Date of business commencement | 2004년(Year) 06월(Month) 10일(Day) | | |
| 사업자등록일 Date of business registration | 2004년(Year) 06월(Month) 23일(Day) | | |
| 업종 Business type | 건설/제조 Construction/Manufacturing | | |
| 종목 Business item | 화학세정공사업 Chemical Cleaning, Air Conditioning and Plumbing Related Works 화공약품, 화학세정제 외 Manufacture of Chemical Preparations for Photograph and Sensitized Materials | | |
| 공동사업자 Joint business owner | 성명(법인명) Name(Name of company) | 주민(사업자)등록번호 Resident(Business) registration no. | |
| | 해당사항 없습니다 (No Data) | | |
| <p>위와 같이 증명합니다. I certify that above information is true and correct to the best of my knowledge and belief. ※ 위 내용은 발급일 현재 상황으로서 추후 변경될 수 있습니다. The information is true as of the issue date of this certificate and it can be subject to change.</p> | | | |
| 접수번호 Receipt No. | 501119506830 | 2018년 8월 22일 Year Month Day | |
| 담당부서 Department | 민원봉사실 Taxpayer Service Center | <p>강서세무서장 (인) Head of Gangseo District Tax Office (Stamp)</p> | |
| 담당자 Staff in Charge | 정유나 Jeong Yu Na | | |
| 연락처 Telephone No. | 02-2630-4226 | | |

| | | | |
|---|------------------------|---|---|
| <p>건설업등록증 Construction Business Registration Certificate</p> | | | |
| <p>업종 : 기계설비공사업 Business Type: Machinery & Equipment Construction</p> | | <p>등록번호 : 인천계양 2008-10-01 Construction Registration No.: INCHEONGYEYANG2008-10-01</p> | |
| <p>상호 : 세종공업(주) Name of Company: Sejong Power Plant Service Corporation</p> | | <p>대표자 : 백영춘 Name of Representative: Paik Young chun</p> | |
| <p>주된영업소소재지 : 인천 계양구 작전동 901-3 세종팔리스빌딩 203호 Address of Company: 203, sejong palace B/D, 714 Jangjuero, Gyeyang, Incheon, Korea</p> | | | |
| <p>법인(주민)등록번호 : 120111-***** Corporation registration No.: 120111-*****</p> | | | |
| <p>국적 또는 소속국가명 : 대한민국 Nationality: Republic of Korea</p> | | <p>등록일자 : 2008.11.28 Date of Registration: 2008.11.28</p> | |
| <p>위 자는 건설산업기본법 제9조의 규정에 의한 건설업자임을 증명합니다. This is to certify that above mentioned company is an enrolled in compliance with Article 9 of Framework Act on the Construction Industry Act</p> | | | |
| <p>2008년 11월 28일</p> | | | |
| <p>인천광역시 계양구청장 (인) Incheon Metropolitan City Chief of Gyeyang District Office</p> | | | |
| <p>변경사항 Changes items</p> | | | |
| 변경년월 Date | 변경구분 Classification | 변경내용 Changes contents | 기록일 및 기록자 (서명 또는 인) Record Date & Confirmer |
| 2009.3.30 | 대표자 | 전) 천상만 후) 이한민 | 2009.4.14 정경식 |
| 2012.2.2 | 상호 | 전) 세종공업(주) → 후) 에스피에스(주) | 2012.2.17 정경식 |
| 2013.6.24 | 대표자 | 전) 이한민 → 후) 이한민, 최의진 | 2013.2.6, 정경식 |
| 2015.3.2 | 주거제한 | 2018.3.2 일로 부터 30일이내 | 2015.3.2 유원희 |
| 2017.3.7 | 대표자 | 전) 이한민 → 후) 박명채 | 2017.3.10 유원희 |
| 2017.6.30 | 대표자 | 전) 박명채 → 후) 우영규 | 2017.7.6 유원희 |
| 2018.1.16 | 소재지 | 구전서로 146, 4층(비동, 알파레코) | 2018.2.17 전영규 |
| 2018.7.20 | 대표자 | 백영춘 | 2018.4.1 전영규 |

Business Certificate

Registration for Electrical Construction & Oversea Project.

■ 해외건설촉진법 시행규칙 [별지 제3호서식] <개정 2014. 2. 14>

(앞쪽)

제 667 호
No. 667

해외건설업 신고확인증 (Certification of International Contractor)

상 호 : 에스피피에스(주)
(Name of Company) (Sejong Power Plant Service Corporation Co., Ltd.)

대 표 자 : 백영춘
(Name of Company Representative) (Paik Young Chun)

법 인 등 록 번 호 (생 년 월 일) : [120111-0191718]
[Corperation registration number(date of Birth)]

신 고 업 종 : 전문건설업(기계설비공사업)
(Type of Business) (Machinery & Equipment)

주 된 사 무 소 의 소 재 지 : 서울특별시 강서구 공항대로 222, 1204호(마곡동)
(Address of Company) (#1204, 222, Gonghang-daero, Gangseo-gu, Seoul, Korea)

「해외건설촉진법」 제6조 제1항에 따라 해외건설업의 신고를 하였음을 증명합니다.

This is to certify that the above mentioned company is an enrolled international contractor in compliance with Clause 1 under Article 6 of Overseas Construction Promotion Act.

2013년 10월 29일

해외건설협회장

(Chairman of International Contractors Association of Korea)



해외건설업신고사항(상호, 대표자, 영업소소재지)이 변경된 경우
사유발생일로부터 30일 이내 반드시 변경신고를 하시기 바랍니다.

210mmx297mm [보존용지(1종) 120g/m²]

Major Customers

Construction firm

posco
포스코건설

GS 건설
GS Construction

대우건설
Daewoo Construction

HYUNDAI
ENGINEERING & CONSTRUCTION

SK E&C

DAELIM

SAMSUNG 삼성물산

한화건설
Hanhwa Construction

LOTTE E&C

Heavy Industry firm

미래를 개척하는
현대중공업

Hyundai heavy industry

SAMSUNG 삼성엔지니어링

DOOSAN

SK 에너지

KEPCO KOREA
ELECTRIC POWER
CORPORATION

I am your Energy
GS 칼텍스

TSKwater



Qualified Engineer Status

Certificates for each classification

| Classification | Description | Persons | Remark |
|----------------|----------------------------------|---------|----------------------------|
| Chemical | Analysis Technician | 1 | chemical analysis |
| Mechanical | Surveyor | 1 | Machine-specialized |
| Mechanical | Surveyor | 1 | Machine-intermediate level |
| Safety | HSE Engineer | 1 | Industrial safety engineer |
| | Hazardous Engineer | 1 | Dangerous Manager |
| Admin | FTA Manager | 1 | For procurement |
| | Biz Advisor | 1 | Management supervisor |
| | Biz I.T Accountant & ITQ | 3 | IT |
| | Auto CAD | 3 | IT |
| | Word Processor – 1 st | 1 | IT |
| | Licensed Real Estate | 1 | |
| | Japanese Language – 1st | 1 | |
| Total | | 13 | |



Status of equipment

| Equipment | Spec. | Q'ty | Remark |
|---------------------------|-----------------------------------|------|--------------|
| Pump & Motor | 450m ³ /hr | 2 | SUS 316L |
| | 240m ³ /hr | 10 | " |
| | 120m ³ /hr | 5 | " |
| | 60m ³ /hr | 6 | " |
| Oil Flushing skid | 2,500L/min | 2 | |
| | 1,600L/min | 3 | |
| | 1,200L/min | 3 | |
| | 600L/min | 2 | |
| Oil Heater | Φ1,200 x 1,500mm | 1 | |
| Steam Boiler | 5Ton/hr(Smoke tube type) | 7 | |
| | 3Ton/hr(Once through type) | 5 | |
| | 1Ton/hr(Once through type) | 3 | |
| Jet Cleaner | 300 kg/cm ² x 25 ℓ/min | 6 | |
| | 250 kg/cm ² x 20ℓ/min | 6 | |
| Heat Exchanger | 3,000,000 kcal/hr | 4 | Plate Type |
| | 6,000,000 kcal/hr | 2 | Plate Type |
| Tool Box | 1,800mm x 1,000mm x 3,000mm | 3 | |
| | 1,800mm x 1,000mm x 1,800mm | 4 | |
| Container | 2,200*6,000*2,500mm | 3 | |
| | 2,200*9,000*2,500mm | 2 | |
| Air Heater(M.N : SWH-100) | 100,000 kcal/hr x Diesel | 3 | |
| Waste Water Tank | 40m ³ | 5 | Carbon steel |

Status of equipment

| Equipment | Spec. | Q'ty | Remark |
|------------------------------|----------------------------|------|--------------------------|
| Circulation tank | 10m ³ x ALL SUS | 10 | |
| | 5m ³ x ALL SUS | 5 | |
| | 4m ³ x ALL SUS | 5 | |
| Diesel Tank | 10m ³ x ALL SUS | 2 | |
| | 5m ³ x ALL SUS | 2 | |
| | 3m ³ x ALL SUS | 3 | |
| | 1m ³ c ALL SUS | 2 | |
| Hot plate & Magnetic stirrer | RPM2000 Temp 360°C | 10 | |
| Electric Balance | 0.1 mg ~ 200 g | 10 | |
| pH Meter | 1 ~ 14 | 10 | |
| Turbidity Meter | 0 ~999 NTU | 10 | |
| Conductivity Meter | 0.1μs/cm ~ 1.0μs/cm | 12 | |
| Black Light | 0~3,000Å | 4 | |
| Spectrophotometer | WLR 325~1,000nm | 2 | |
| Distill water machine | 4ℓ/hr | 2 | |
| Borescope | 3.5" TFT Monitor φ25mm | 2 | Lenth 30m |
| Oil Analyzer | 0~1,000ppm | 2 | |
| Particle Counter | ISO1943:1999 | 2 | Oil measuring instrument |
| Contamikit | YC-101 Nas 0~12 | 2 | Oil measuring instrument |
| | YC-100 Nas 5~12 | 4 | Oil measuring instrument |
| Oil velocity machine | 15A~500A | 4 | |

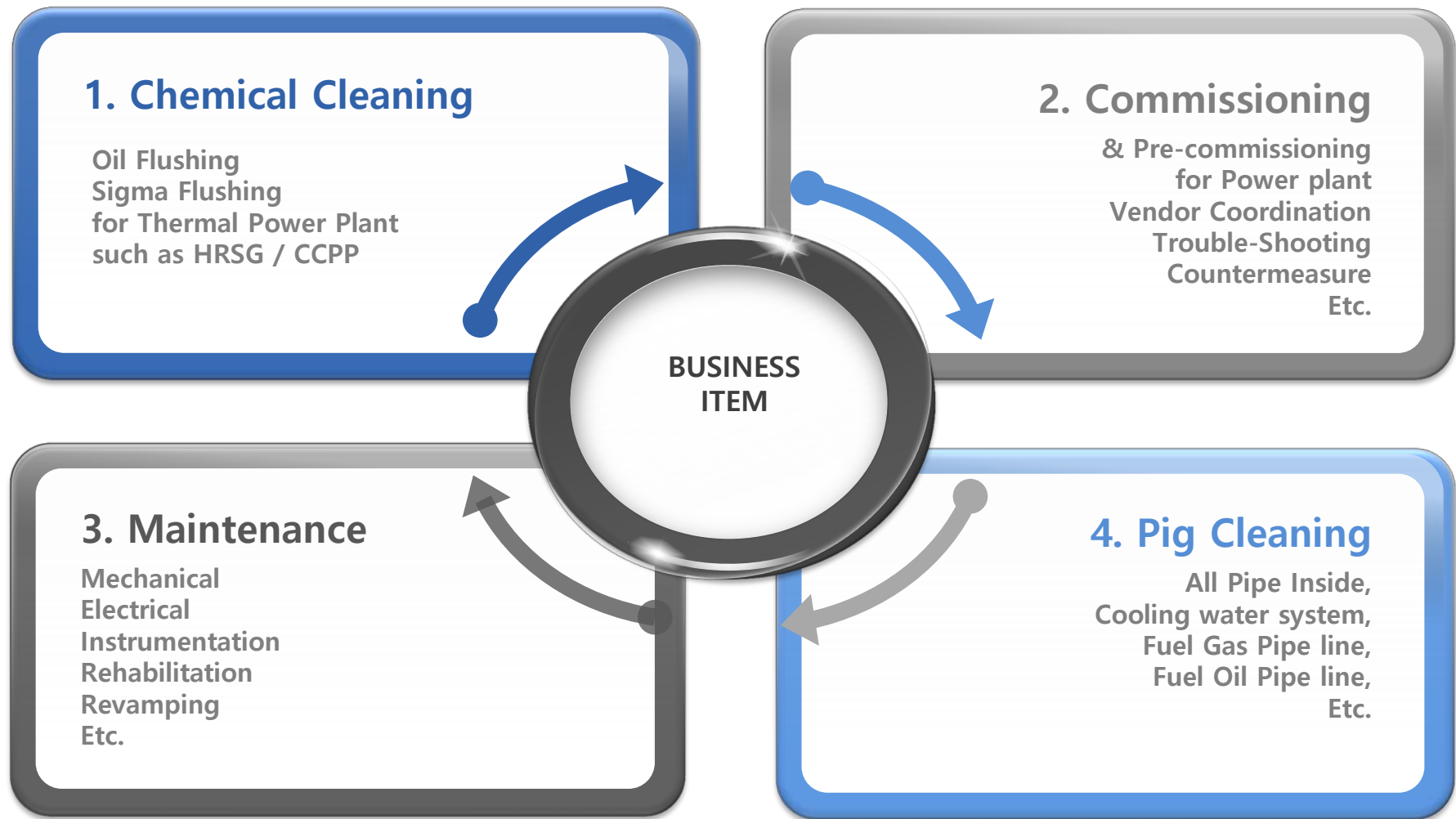


Status of equipment

| Equipment | Spec. | Q'ty | Remark |
|------------------------|----------------------------------|-----------|--------|
| High speed cutter | 16" | 10 | |
| Drum Pump | 150ℓ/min x 10m | 10 | |
| | 200ℓ/min x 10m | 10 | |
| Tig Welding Machine | 10kw x 300A | 20 | |
| Invert Welding Machine | 5kw x 300A | 5 | |
| Down Transformer | 440V → 380V x 30kva | 2 | |
| | 440v → 220V x 15kva | 1 | |
| Electric Air Blower | 7.1 m ³ /min x 5kw | 4 | |
| Chain Block | 10Ton | 3 | |
| | 5Ton | 5 | |
| | 3Ton | 20 | |
| | 1Ton | 30 | |
| Hoist | 3Ton | 2 | |
| Diaphragm pump | 132 ℓ/min x 5 kg/cm ² | 5 | |
| | 132 ℓ/min x 5 kg/cm ² | 5 | |
| Tube Cleaner | 30A~250A | 2 | |
| High Pressure Hos | 8A~50A | 500 0m | |
| PVC Tank | 10 m ³ | 5 | |
| | 5 m ³ | 10 | |



Company Business





Chemical Cleaning Dept

Chemical Cleaning

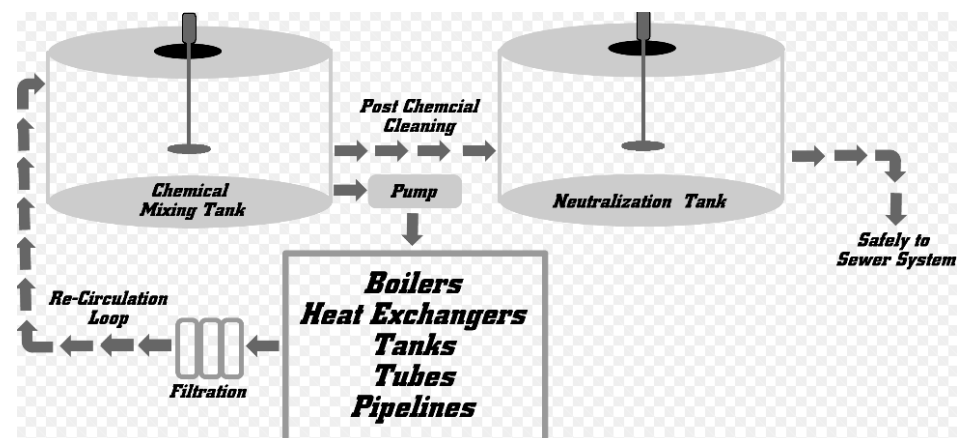
Before treatment



After treatment



| Category | Chemicals Commonly Used | Typical Target Contaminant(s) |
|--------------------------|--|-------------------------------|
| Acid | <ul style="list-style-type: none">• Citric Acid ($C_6H_8O_7$)• Hydrochloric Acid (HCl) | Inorganic scale |
| Base | <ul style="list-style-type: none">• Caustic (NaOH) | Organics |
| Oxidants / Disinfectants | <ul style="list-style-type: none">• Sodium Hypochlorite (NaOCl)• Chlorine (Cl_2) Gas• Hydrogen Peroxide (H_2O_2) | Organics; Biofilms |
| Surfactants | <ul style="list-style-type: none">• Various | Organics; Inert particles |





Chemical Cleaning Dept



Waste Chemicals Transfer
Tankrollly



Steam Drum Jet Cleaning

Chemical
Cleaning

Byeol-nae Combined Heat &
Power

Before



Before chemical cleaning
Steam Drum

After



After chemical cleaning
Steam Drum



Chemical Cleaning Dept

Certificates



Certificate of Quality Management System

This is to certify that Quality Management System of

SEJONG POWER PLANT SERVICE CO.

Alpha Tech 4-F, 146, Ojeong-ro, Bucheon-si, Gyeonggi-do, Korea

applicable to

DESIGN, DEVELOPMENT, CONSTRUCTION AND SERVICE OF PIPE CHEMICAL CLEANING WORKS

has been assessed and registered by Korea Knowledge Standards Registrar Company Limited against the provisions of

ISO 9001:2015 / KS Q ISO 9001:2015

This registration is subjected to the company maintaining an Quality management system, to the above standard, which will be monitored by Korea Knowledge Standards Registrar.

| | |
|-----------------------------|---------------------------------------|
| Certificate No. QMC-0962 | Original Approval Date 10-May-2010 |
|-----------------------------|---------------------------------------|

| | | | |
|------------------------------|----------------------------|---|-------------|
| Approved date 19-Apr-2018 | Expiry Date 28-Apr-2018 | ~ | 27-Apr-2021 |
|------------------------------|----------------------------|---|-------------|

※ Re-issue due to re-certification/change application standard/change of address

Audit Team Leader Eung-Suk, Kim  President Jang Sub Kim 



Korea Knowledge Standards Registrar was accredited as Quality Management System certification body (Accreditation Number: KAB-QC-29) by Korea Accreditation Board (KAB) and it is based on multilateral recognition arrangement (MLA) from IAF. This certificate is the property with Korea Knowledge Standards Registrar then if required, you should return at once. 1106, 55, Digital-ro 34-gil, Guro-gu, Seoul, Korea (Tel. 82-2-2025-2674-6, Fax. 82-2-850-3329)



Certificate of Environmental Management System

This is to certify that Environmental Management System of

SEJONG POWER PLANT SERVICE CO.

Alpha Tech 4-F, 146, Ojeong-ro, Bucheon-si, Gyeonggi-do, Korea

applicable to

DESIGN, DEVELOPMENT, CONSTRUCTION AND SERVICE OF PIPE CHEMICAL CLEANING WORKS

has been assessed and registered by Korea Knowledge Standards Registrar Company Limited against the provisions of

ISO 14001:2015 / KS I ISO 14001:2015

This registration is subjected to the company maintaining an Environmental management system, to the above standard, which will be monitored by Korea Knowledge Standards Registrar.

| | |
|-----------------------------|---------------------------------------|
| Certificate No. EMC-0310 | Original Approval Date 28-Apr-2009 |
|-----------------------------|---------------------------------------|

| | | | |
|------------------------------|----------------------------|---|-------------|
| Approved date 19-Apr-2018 | Expiry Date 28-Apr-2018 | ~ | 27-Apr-2021 |
|------------------------------|----------------------------|---|-------------|

※ Re-issue due to re-certification/change application standard/change of address

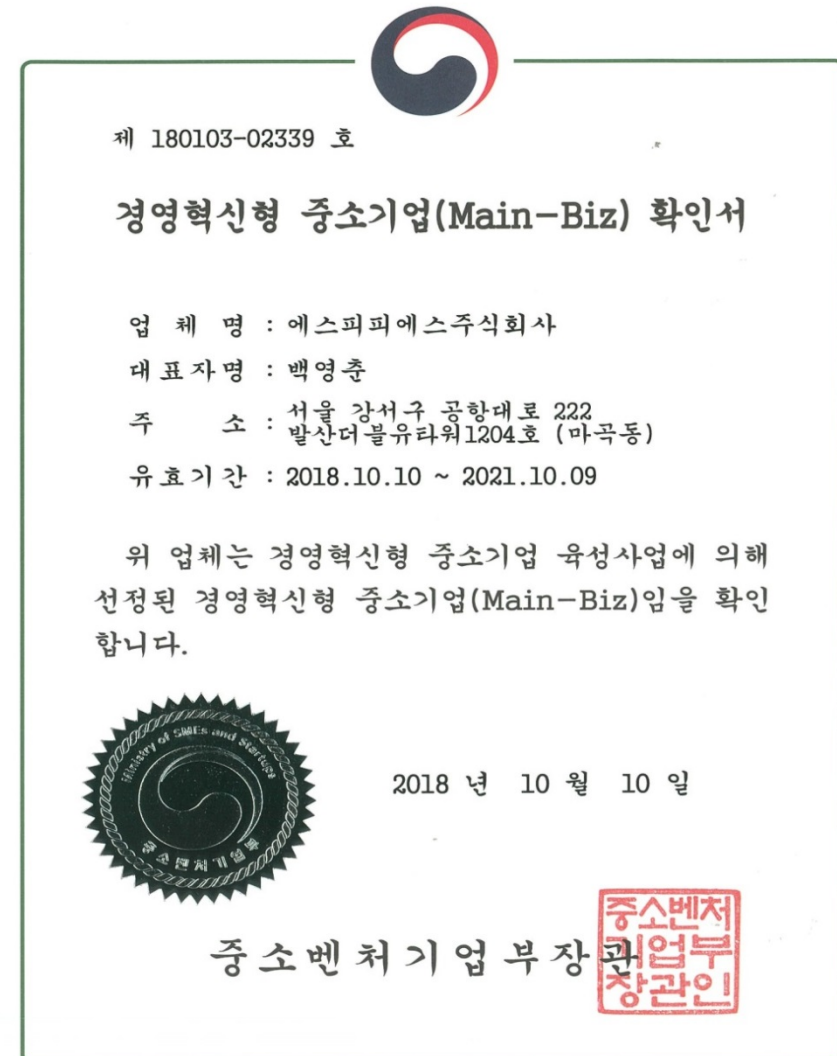
Audit Team Leader Eung-Suk, Kim  President Jang Sub Kim 



Korea Knowledge Standards Registrar was accredited as Environmental Management System certification body (Accreditation Number: KAB-EC-23) by Korea Accreditation Board (KAB) and it is based on multilateral recognition arrangement (MLA) from IAF. This certificate is the property with Korea Knowledge Standards Registrar then if required, you should return at once. 1106, 55, Digital-ro 34-gil, Guro-gu, Seoul, Korea (Tel. 82-2-2025-2674-6, Fax. 82-2-850-3329)

Chemical Cleaning Dept

Certificates





Experience Record

Domestic

| Date | Project Name | Client |
|------|--|-------------------------|
| 2004 | Chemical Cleaning & Oil Flushing for SPM Hyd' & L/O system of Hyundai HYSCO cold rolling mill in Dangjin | Hyundai Hysco |
| | Chemical Cleaning & Oil Flushing for CCL Hyd' & L/O system of Hyundai HYSCO cold rolling mill in Dangjin | Hyundai Hysco |
| | Chemical Cleaning for #3 COKE C.D.Q Boiler of POSCO in Kwangyang | POSCO Construction |
| 2005 | Oil Flushing for thick plate mill Hyd' system of POSCO in Pohang | POSCO Construction |
| | Chemical Cleaning & Oil Flushing for PL Hyd' & system of Hyundai HYSCO cold rolling mill in Dangjin | Hyundai Hysco |
| | Oil Flushing for Hot strip mill C/BED HYD' System of INI STEEL in Pohang | INI Steel/Shin Sung ENG |
| | Chemical Cleaning & Oil Flushing for PL Hyd' & L/O system of Hyundai HYSCO cold rolling mill in Dangjin | Hyundai Hysco |
| | Chemical Cleaning & Oil Flushing for #4 COKE C.D.Q Boiler of POSCO in Kwangyang | POSCO Construction |
| | Chemical Cleaning & Oil Flushing for PGL Hyd' & L/O system of Hyundai HYSCO cold rolling mill in Dangjin | POSCO Construction |
| | Oil Flushing for thick plate mill Hyd' system of POSCO in Pohang | POSCO Construction |
| | Oil Flushing for Hot strip mill Hyd' system of Dongkuk steel in Pohang | Dongkuk Steel |
| | On-line Chemical Cleaning for TCM LUB & MUG Oil System of Hyunday HYSCO cold rolling mill in Dangjin | Hyundai Hysco |
| | Oil Flushing for CAL Hyd' of Hyunday HYSCO cold rolling mill in Dangjin | Hyundai Hysco |
| | Chemical Cleaning & Oil Flushing for Hot strips mill of SEA BESTILL in Kunsan | SEA Besteill |
| | Chemical Cleaning & Oil Flushing for Hot strips mill of INI STEEL in pohang | INI Steel |

Experience Record

Domestic

| Date | Project Name | Client |
|------|---|--------------------------------|
| 2006 | Chemical Cleaning & Oil Flushing for Sakhalin 1 EPC-1 OPF PJT(Gas Platform) | Hyundai Heavy Industry Company |
| | Chemical Cleaning & Oil Flushing for BP Plutonio PJT | Hyundai Heavy Industry Company |
| | Chemical Cleaning & Oil Flushing for Hot strips mill of INI STEEL | INI Steel |
| | POSCO New 2 Hot strip mill construction Oil Flushing | POSCO Construction |
| | POSCO 2 Thick plate Hydraulic facilities construction Oil Flushing | POSCO Construction |
| | Oil Flushing for HYD'&OIL LUB' System | POSCO Construction |
| | Chemical Cleaning & Oil Flushing for Bloom CCM plant of SEA BESTILL in Kunsan | SEA Besteil |
| | Chemical Cleaning for Exchanger & EP of Polymer Factory | SK Corp |
| | Ulsan Hyosung NF3 Factory Equipment Chemical Cleaning | Hyosung Construction |
| 2007 | Chemical Cleaning for Doopex 1 Boiler of Doosan Heavy Ind. in Changwon | Doosan Heavy Industry company |
| | Chemical Cleaning for #1 COKE C.D.Q Boiler of POSCO in Kwangyang | POSCO Construction |
| | Oil Flushing for Skin Pass Mill Hyd' line of SEA BESTILL in Kunsan | SEA Besteill |
| | Alkali Cleaning for HRSG of Hwaseong cogeneration power plant | KDHC/Daewoo Construction |
| | Pig Cleaning for Fuel Gas Line of Hwaseong cogeneration power plant | KDHC/Daewoo Construction |
| | Chemical Cleaning for Fuel Gas Booting Compressor Line of SK Complex in Ulsan | SK Construction |
| | Chemical Cleaning for Boiler of Nonhyun state cogeneration power plant | Daewoo Construction |



Experience Record

Domestic

| Date | Project Name | Client |
|------|---|--------------------------------|
| 2007 | Chemical Cleaning for #3 COKE CDQ Boiler of Posco in Pohang | POSCO Construction |
| | Chemical Cleaning for Chilled Water line of FPSO S325 | Hyundai Samho Corp |
| | Chemical Cleaning for Hydrogen Peroxide system of HPPO PJT | SKC |
| | Chemical Cleaning for 5159-CA (Exchanger) | SKE |
| 2008 | Chemical Cleaning for Upper hood of POSCO in Kwangyang | Saehwa Corp |
| | Chemical Cleaning & Oil Flushing for TOTAL AKPO FPSO PJT | Hyundai Heavy Industry Company |
| | Chemical Cleaning for Heat Exchanger & EP of Synthetic Resin Factory | SKE |
| | Chemical Cleaning for HRSG of Songdo in Incheon, Korea | Doosan Heavy Industry company |
| 2009 | Oil Flushing for USAN FPSO-USCF in Ulsan, Korea | Hyundai Heavy Industry Company |
| | Chemical Cleaning & Oil Flushing for Hyundai Steel C Hot Rolling Mill Plant in Dangjin, Korea | Hyundai Steel |
| | Chemical Cleaning for Shinkori Nuclear Power Plant Units 1&2 in Ulsan, Korea | Hyundai Construction |
| 2010 | Chemical Cleaning & Oil Flushing for USAN PJT in Ulsan | Hyundai Heavy Industry Company |
| | Oil Flushing for NR 2 PJT in Ulsan | Hyundai Heavy Industry Company |
| 2011 | Chemical Cleaning for HRSG of Jungkwan in Busan, Korea | Hyundai Construction |
| | Chemical Cleaning for Freshwater Transfer pump package NR2 | Hyundai Heavy Industry Company |
| | Chemical Cleaning for Yeosu CFBC Boiler Steam Line Pig Cleaning | Hyundai Construction |
| | Chemical Cleaning for Shinkori Nuclear Power Plant Units 3&4 in Ulsan | Hyundai Construction |



Experience Record

Domestic

| Date | Project Name | Client |
|------|--|--------------------------------|
| 2012 | Chemical Cleaning for HRSG of Oseong CCPP Project in Pyongtaek | SK Construction |
| | Chemical Cleaning for Reactor coolant pump Water Flushing and Jet Cleaning | KAERI |
| | IGD DAS Chemical Cleaning & Oil Flushing | Hyundai Heavy Industry Company |
| | Chemical Cleaning for RO Line Piping of Songdo Bio Edison Project In Incheon | Sam Sung Construction |
| | Chemical Cleaning for GSC VGOFCC Project | GS Construction |
| | Chemical Cleaning for Byeol-nae Combined Heat & Power | KDHC |
| 2013 | Chemical Cleaning & Oil Flushing for Gori Nuclear Power Plant Units1 in Ulsan, Korea | KHNP |
| | Chemical Cleaning for Yang-Ju Combined Heat & Power Plant | Hanjin Heavy Industry Company |
| 2014 | Chemical Cleaning for Methanol Converter Inside | Doosan Construction |
| | Chemical Cleaning for HRSG of Innocity in Daegu, Korea | Sam Sung C&T |
| | Chemical Cleaning for V-Project OBL, IBL | SK Construction |
| | Chemical Cleaning for Pyongtaek Power Plant, West Coast of Korea | KOWEPO |
| | Chemical Cleaning & Oil Flushing for Clair Ridge in Ulsan, Korea | Hyundai Heavy Industry Company |
| 2015 | Alkali Cleaning for Song-Do EDISON 2 PROJECT | Daegu Green Power Co., Ltd. |
| | Oil Flushing for BCP, Ulsan | Hyundai Heavy Industry Company |
| | Chemical Cleaning for Wonju RDF Project | SK Construction |
| | VRHCR Revamp-612K151 Chemical cleaning | GS Caltex Corp. |



Experience Record

Domestic

| Date | Project Name | Client |
|------|--|--------------------------------|
| 2015 | Chemical Cleaning for GE #4 Project in Gunjang energy | Lotte Construction |
| | Chemical Cleaning for Tae An Unit 9,10 Power Plant, West Coast of Korea | KOWEPO |
| | Chemical Cleaning for KNC NX-E1301 in Ulsan | SK Chemical Co., Ltd |
| | Chemical Cleaning for Yeosu Kumho Petrochemical ACC | SamSung ENG |
| 2016 | Chemical Cleaning & Oil Flushing for Jangkrik FPU in Ulsan | Hyundai Heavy Industry Company |
| | Chemical Cleaning & Oil Flushing for Badamyar in Ulsan | Hyundai Heavy Industry Company |
| | Chemical Cleaning & Oil Flushing for Bergading in Ulsan | Hyundai Heavy Industry Company |
| | Chemical Cleaning for Bukpyeong Air Preheater Unit 1,2 Thermal Power Plant | STX Corporation |
| 2017 | Tube Chemical Cleaning for Daerun Power Plant Condensate System | Daerun Power Company |
| | Chemical Cleaning for of Boiler #1 Unit in Taean coal-fired power plant | KOWEPO |
| | Chemical Cleaning for of P.V.L System Unit #9&10 in Taean Coal-Fired Power Plant | MHI |
| | Chemical Cleaning for Jeonnam Naju Combined Cycle Power Plant | Hansol Sintec Co.,Ltd |
| 2018 | Chemical Cleaning for Ulsa S-OIL RUC PROJECT AREA2 & AREA3 | Daewoo Construction |
| | Chemical Cleaning for Jeju LNG HRSG Project in Jeju Island | Doosan Construction |
| | Chemical Cleaning for Boiler #4 Unit in Hadong | KOWEPO |
| | Chemical Cleaning for Boiler #1&2 Unit in New Borung Coal-Fired Power Plant | Jeicon Co.,Ltd |



Experience Record

Domestic

| Date | Project Name | Client |
|------|--|--------------------------------------|
| 2018 | Chemical Cleaning for Air Preheater Jet Cleaning Bukpyeong thermal power plant | GS Donghae Electric Power Co., Ltd. |
| | Chemical Cleaning for Jeju LNG Fuel Gas / Fuel Oil Project in Jeju Island | Doosan Construction |
| 2019 | Chemical Cleaning for Boiler Tube Outside Cleaning Hanwha total | Hanwha Total Petrochemical Co., Ltd. |
| | Chemical cleaning for 2019 TA C3 Splitter process heat exchanger | GS Caltex Corp. |
| | Chemical cleaning for (400MW) Seoul Power Station #1, #2 | Lotte Construction |
| | Chemical Cleaning for of Boiler #8 Unit in Taean coal-fired power plant | KOWEPO |
| | Chemical Cleaning for ADL PROJECT PKG1,2 LUBE OIL FLUSHING Hanwha total | Hanwha Total Petrochemical Co., Ltd. |
| | Chemical Cleaning for of Boiler #3 Unit in Taean coal-fired power plant | KOWEPO |
| | Cleaning for HRSG #3~6 Tube Cleaning KOREA EAST-WEST POWER CO.,LTD | KOEWP |
| | Chemical Cleaning for S-Project-Chemical Cleaning | SK Construction |
| | Cleaning for Heat Equipment Cleaning Busan-Jung Kwan Energy | Busan-Jung Kwan Energy |
| | Chemical Cleaning for of Boiler #2 Unit in Yong-Dong thermal power plant | Gangneung Eco Power |
| 2020 | Chemical Cleaning for of Boiler #7 Unit in Taean coal-fired power plant | KOWEPO |
| | Chemical Cleaning for HRSG #4 Tube Cleaning in Ulsan thermal power plant | KOWEPO |
| | Chemical Cleaning for Resource Recovery at Bio-waste in Nowon | DongyangPlant |



Experience Record

Domestic

| Date | Project Name | Client |
|------|--|----------------------|
| 2020 | Chemical Cleaning for Daesan Biomass Power Plant | Hyundai Construction |
| | Chemical Cleaning for UlsanPP 400KTA Project | SK Construction |
| | Chemical Cleaning for HFC project Chemical Cleaning and wastewater treatment service | GS Construction |
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Experience Record

Overseas

| Date | Country | Project Name | Client |
|------|---------------|---|----------------------|
| 2004 | UAE | Umm Al Nar 1550MW IWPP Project | TOSHIBA |
| 2006 | Libya | Zawia CCPP Project | Hyundai Construction |
| 2008 | Nigeria | AFAM VI CCPP Project | Daewoo Construction |
| | UAE | Al Taweelah A10 Power Project | Doosan Heavy |
| | Vietnam | POSCO Full Hard Project Vung Tau | POSCO Construction |
| 2009 | Libya | Benghazi CCPP Project(FG Line) Pig Cleaning | Daewoo Construction |
| | Qatar | Ras Laffan C IWPP Project(FG Line) Pig Cleaning | Hyundai Construction |
| 2010 | UAE | Jebel Ali Power & Desalination Station 'M Project(HVAC Lind Pig Cleaning) | Doosan Construction |
| | Libya | Benghazi/Misurata CCPP Project | Daewoo Construction |
| 2011 | Peru | Kallpa HRSG Chemical Cleaning | POSCO Construction |
| 2012 | Peru | Chilca Uno Chemical Cleaning | POSCO Construction |
| | Bangladesh | New Haripur Power Plant Project | Hyundai Construction |
| | UAE | Shuweihat S3 IPP Project | Hyundai Construction |
| 2013 | Saudi Arabia | Shoaiba2 CCPP Project | Daelim Construction |
| 2014 | Vietnam | Mong Duong-1 Thermal Power Plant Project(FO Lice Pig Cleaning) | Hyundai Construction |
| | Ghana | Takoradi T2 Expansion Project | Woolim Plant Corp |
| | Cote d'Ivoire | Azito Phase 3 Extension Project | Hyundai Construction |



Experience Record

Overseas

| Date | Country | Project Name | Client |
|------|--------------|--|--------------------------------|
| 2015 | Turkmenistan | Turkmenbashi Oil Refineries Complex Project | Hyundai Construction |
| 2016 | Saudi Arabia | Rabih2 IPP Project | SamSung C&T |
| | UAE | AL Mirfa CCPP Project Pig Cleaning | Hyundai Construction |
| | Vietnam | Thai Bin1 Thermal Power Plant Project Chemical Cleaning | JURONG ENG |
| | Morocco | Morocco SAFI CCPP Project Chemical Cleaning | Daewoo Construction |
| | Philippines | Philippines CBNC ECO Tube Jet Cleaning | Hansol SeenTec Co., Ltd |
| | UAE | AL Mirfa CCPP Project Chemical Cleaning | Hyundai Construction |
| | UAE | UAE BNPP CP-P1 #2,3,4 Process Piping Cleaning | Yunchang Engineering Co., Ltd. |
| 2017 | Turkmenistan | Turkmenistan Ethane Crackerand PE/PP Project Chemical Cleaning Works | Hyundai Engineering Co.,Ltd |
| | Uzbekistan | UKAN Project Chemical Cleaning & Oil Flushing | Hyundai Engineering Co.,Ltd |
| | Vietnam | Thai Bin2 Thermal Power Plant Project Chemical Cleaning | Daelim Construction |
| 2018 | Indonesia | KALSEL-1 COAL RIED POWER PLANT PROJECT | Hyundai Engineering Co.,Ltd |
| | Morocco | Morocco SAFI CCPP Project Chemical Cleaning | Daewoo Construction |
| | Philippines | Masinloc Thermal Power Plant Project Oil Flushing | Posco Construction |
| 2019 | UAE | UAE BNPP CP-P1 #2,3,4 Process Piping Cleaning | Yunchang Engineering Co., Ltd. |



Experience Record

Overseas

| Date | Country | Project Name | Client |
|------|---------|---|---------------------|
| 2020 | Vietnam | Song Hau 1 Thermal Power Plant Project Chemical Cleaning | Doosan Construction |



Experience Record

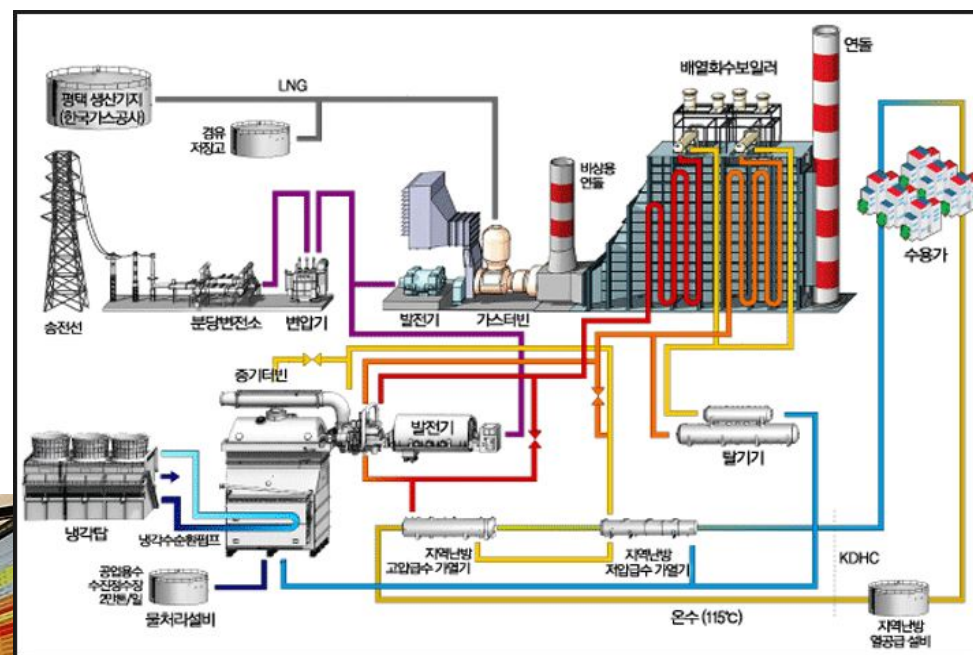
Overseas-Commissioning

| Date | Country | Project Name | Client |
|------|---------|--|---------------------|
| 2013 | Peru | Commissioning Services for Peru Kallpa HRSG | DHIC/Sejong Corp |
| | Peru | Commissioning Services for Peru Chillca Uno | DHIC/Sejong Corp |
| 2016 | Algeria | Commissioning Work for Algeria Ain Arnat CCPP | SoonSan ENS |
| 2019 | Vietnam | Commissioning Management Services for Thai Binh2 Thermal Power Plant | Daelim Construction |
| | | | |



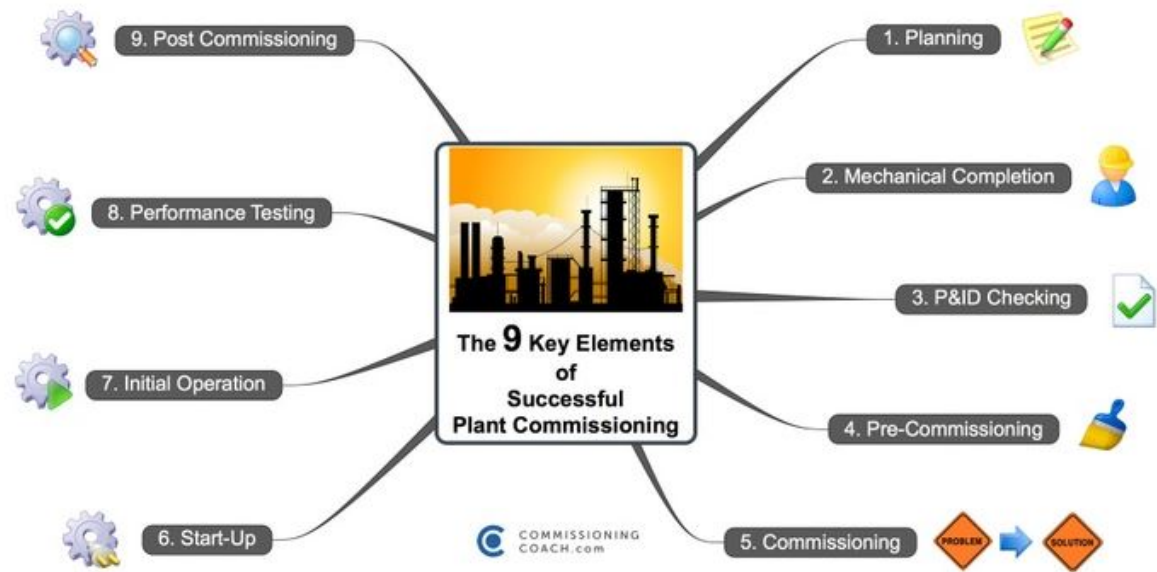
Commissioning Dept

Commissioning & Operation





Commissioning Dept



1. Technical Manpower for Commissioning

| Classification | Person |
|-------------------|--------|
| Pre-commissioning | 10 |
| Commissioning | 30 |
| Maint – Mech | 8 |
| Chemical | 15 |
| Total | 63 |

2. Manpower Dispatching Experience

- Domestic –

- . Jangmun CCPP
 - . Osan Cogen
 - . Kunjang Ennergy
 - . Pocheon Daewoo CCPP
 - . Seokmon Energy Comlex
 - . Yeosu CFB PP
- TOTAL 120 persons per 3 Yrs.

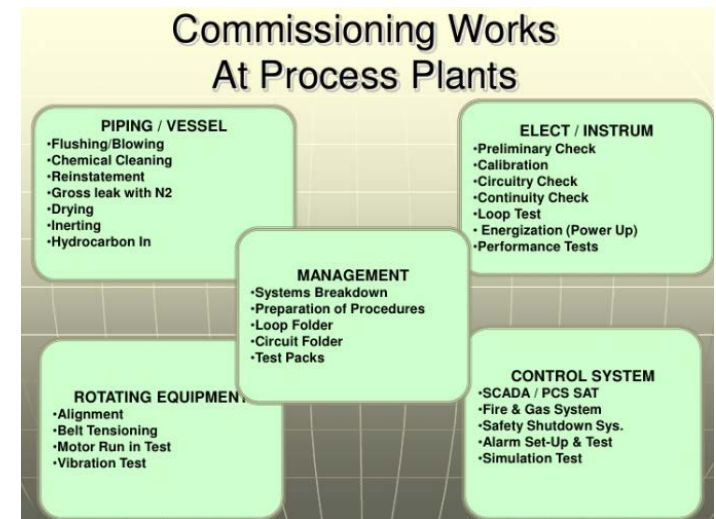
- Oversea –

- . UAE Mirpa P&D
 - . Saudi Arabia Rabiq-2 & Yanbu-1&2
 - . Algeri Biskra Arnat
 - . Turkey Tubanbelli
 - . Moroco Safi
 - . Kenya Geothermal Power
 - . Malaysia Prai CCPP
 - . Indonesia Sarula
 - . Vietnam Omon 1 & 2 .. And others
- TOTAL 130 persons per 3 Yrs

3. Additional M/P 100 Person Recruit Plan

Qualified Experts

- for Pre-commissioning & Commissioning Documents.
- for Power Plant Life Cycle Evaluation & Extension.
- for Performance Test & Reliability Run.
- for Electrical Transfer Line.
- for the Job Training Center Operation.



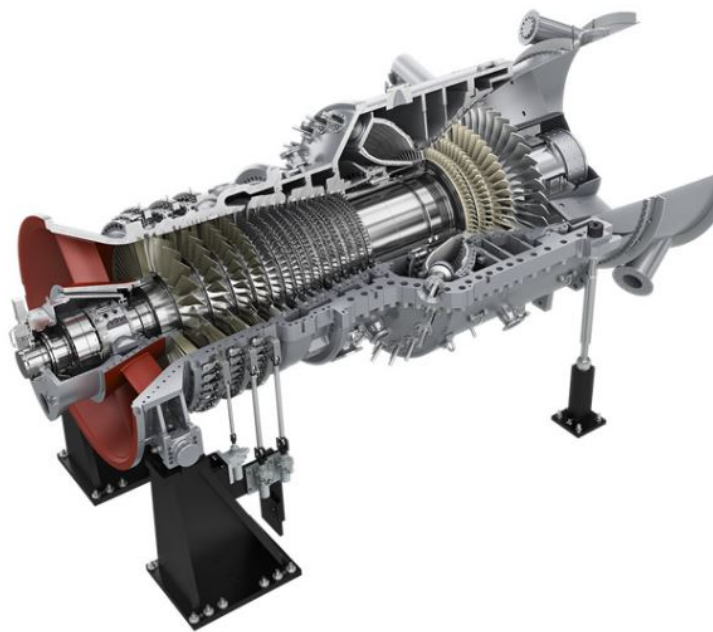
4. For the Future

- Mechanical & Electrical Work for Power Plant Construction & Maintenance.
- Electrical Work for Building Project.
- Trouble-shooting & Countermeasure for Power Plant
- Rehabilitation & Repowering for Existing Power Plant.
- LED Development , Procurement & Construction.



Maintenance Dept

Maintenance & Construction Work





Maintenance Dept

Detail Activities and Manpower Mobilization

| Description | Working Crew | Remark |
|---|--------------|-------------------|
| GT. ST. Generator & Boilers Maintenance | 3 crews | With Vendor Sup'r |
| Transformer, CT/VT and Electriclal Equipment Repair | 2 crews | Elec & Inst |
| STL/STR & Pipe lines Modification | 3 crews | Mech & PPG |
| Concrete Foundation & Building Remodeling | 2 crews | Civil & Arch |
| Underground Piping & Facilities Repair | 1 crews | Civil & PPG |
| Temporary Facilities & Scaffolding Work | 1 crews | Mech |
| TOTAL | 12 crews | |

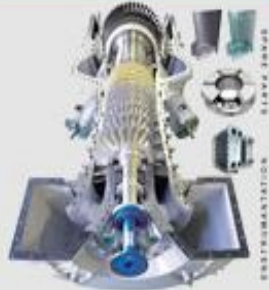




Maintenance Dept

MAINTENANCE SCOPE

STEAM & GAS TURBINE
SPARE PARTS



GUIDE & THRUST BEARINGS



COOLING SYSTEMS



TRANSMISSION & GEARBOXES



PROCESS & PIPELINE
EQUIPMENT



INDUSTRIAL PUMPS



MECHANICAL EQUIPMENT



MECHANICAL REPAIRS



QA / QC Follow up

- **Design Manual ...**
It contains Drawing lists, Diagrams, Descriptions, Technical Data, etc.
- **Operation Manual ...**
It contains Documents needed for the Operation of the Power Plant.
- **Maintenance Manual ...**
It contains Documents for understanding the function of the Components and Systems and for their Maintenance.
- **Commissioning Manual...**
It contains necessary Documents for Commissioning, e.g. Procedures, Schedules of Inspections and Tests, Job Descriptions.
- **Spare Parts Catalogue...**
It contains Essential and Recommended Spare parts list according to the Contract.
- **Index for Manuals...**
It contains list of Components and Systems directly linked to the particular PDF files (Manuals).





Experience Record

Maintenance

| Date | Country | Project Name | Contractor |
|---------|---------|--|-----------------|
| 2008.07 | UAE | Al-Taweelah A10 Proj HRSG Piping & Insulation. | Doosan Heavy |
| 2010.12 | Korea | Hadong Thermal P P. No.1~4 - Maintenance for I&C system. | KPS Corp |
| 2011.09 | Korea | Hadong Thermal P P No.3~8 – Maintenance for Mechanical | KPS Corp |
| 2012.03 | Korea | Tae-An Thermal P P No.2 – Maintenance for Low Pressure Motor & Electrical Auxiliary Facilities | KPS Corp |
| 2012.04 | Korea | Incheon CCPP. No.3~4 – Maintenance fo LP Evaporator | KPS Corp |
| 2012.04 | Korea | Incheon CCPP. – Maintenance for I.D.Fan & F.D.Fan | Pipe-Tech Korea |
| 2012.04 | Korea | Yung-Heung P P No.3 – Overhaul Maintenance for Turbine & Valves. | KPS Corp |
| 2012.05 | Korea | West-Incheon CCPP – I & C Cable Installation for No.14 | KPS Corp |
| 2012.05 | Korea | Pyung-Taek. P P. No.2 – Maintenance for Boiler Header, Tube & Valves. | KPS Corp |
| 2012.05 | Korea | Pyung-Taek. P P. No.2 – Maintenance for Low Pressure Motor & PNL. | KPS Corp |
| 2012.05 | Korea | Pyung-Taek. P P. No.3 – Temporary Piping for Chemical Cleaning | KPS Corp |
| 2012.07 | Korea | West-Incheon CCPP – Maintenance for GT Exhaust Duct | KPS Corp |
| 2012.09 | Korea | Tae-An Thermal P P No.7 – Overhaul Maintenance. | Kps Corp |
| 2012.10 | Korea | 2012Yr. Incheon Energy – Maintenance for Electrical & Instruments | Kps Corp |

New & Oversea Project Development

STATUS :

1. Chemical Cleaning & Pre-commissioning
2. Commissioning & Start-Up Operation.
3. Operation & Maintenance
4. Consulting for Rehabilitation & Re-powering
5. Bio-mass Power Plant
6. Small Hydraulic Power Plant





Oversea Branch



Vietnam Branch

SPPS VINA Co.,Ltd. (SPPS VINA)

Board Dir : Mr. Paik Young chun.

**Address : Thon Nghia Dung, Xa Dai Son Huyen, Tu Ky,Tinhai Hai
Duong Province City, Viet Nam**



Indonesia Branch

PT.SEJONG POWER INDONESIA

Board Dir : Mr. Paik Young chun.

**Address : Ji.Wijaya I No.381 C-D Lantai 3 RT/RW.011/001
Kelurahan Petogogan, Kecamatan Kebayoran Baru
Kota Administrasi Jakarta Selatan**



Oversea



NIGERIA
AFAM VI CCGP Plant Project



LIBYA
Misurata Combined Cycle Project



PERU
Kallpa Combined Cycle Project



LIBYA
Zawia Combined Cycle Project



Portfolio



U.A.E
Umm Al Nar IWPP Project



U.A.E
Jebel Ali M IWPP Project



U.A.E
Shuweihat S3 IPP Project



QATAR
Ras Laffan C IWPP Project



Portfolio

VIETNAM

Mong Duong-1 TPP Project



GHANA

Takoradi T2 Expansion Project



Cote d'Ivoire

Azito Phase3 Extension Project



BANGLADESH

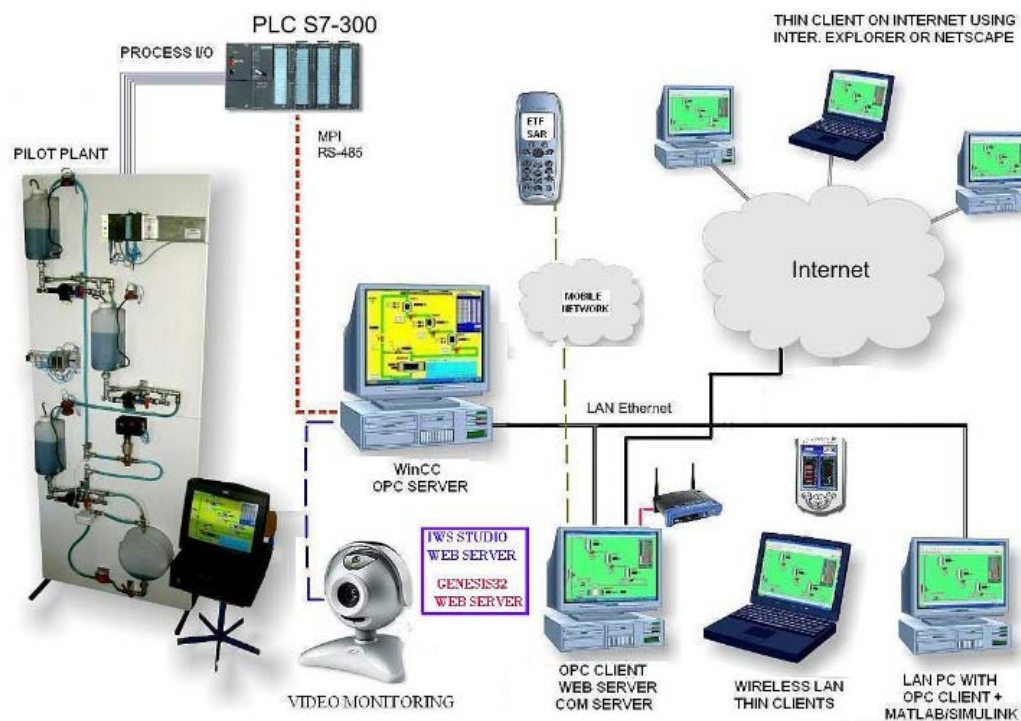
New Haripur Power Plant Project





R & D LAB

R&D Laboratory and Training Center



Status :

- Manual & Documents for Power Plant Pre-commissioning & Commissioning.
- New Technology Development.
- Plasma Thermal Power Plant.
- PLC system & other concerning matters.
- Podossee Digital Photo-shop system.
- Staff & Engineer Training.



Address :

* Research Institute of Energy & Resources. Room.No 135-309 in Seoul National Univ



Power Plant



POWER
Plant

Power Plant in Domestic

Incheon Songdo Bio Edison Proj.



Busan Jungkwan Cogen Proj.



Byeolnae CCPP proj.



Hwaseong Cogen Proj





Power Plant in Domestic

Daegu Inno-city Cogen Proj



Oseong CCPP Proj



Yang-Ju CCPP Proj.



Pyongtaek CCPP Proj





Petro-Chemical Plant



Petro-Chemical Plant



Petro-chemical Plant

SK Petrochemistry., V-Project





Petro-Chemical Plant

GS Corp.,

VGO / FCC



VR / HCR





Petro-Chemical Plant

TOTAL .,

AKPO Ship-Building





Working View



**Chemical Cleaning
Working - View**



Chemical-Cleaning View



Before chemical cleaning
Adsorbent chamber bed line



After chemical cleaning
Adsorbent chamber bed line

Chemical Cleaning SK Petro-chemistry V Project (PX Plant)



Before chemical cleaning
Adsorbent chamber bed line



After chemical cleaning
Adsorbent chamber bed line



Temporary piping
Pump station



Temporary piping
Rotary Valve



Temporary piping
Adsorbent chamber bed line



Temporary piping
Adsorbent chamber bed line



Chemical Cleaning View



Pump station

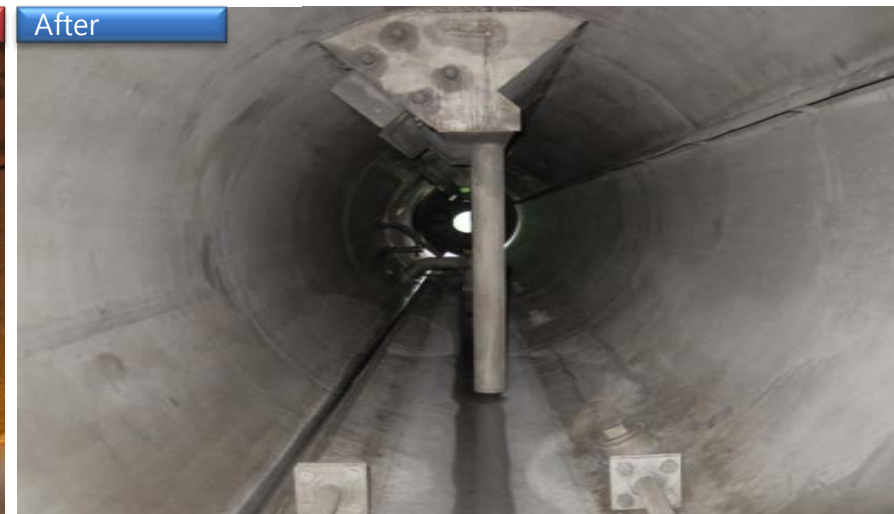


Temporary piping
Main circulation line

Chemical Cleaning Pyongtaek Power Plant Phase 2



Before chemical cleaning Steam Drum



After chemical cleaning Steam Drum



Chemical Cleaning View



Pump Station
Circulating Pump



Pump Station
Steam Boiler

Chemical Cleaning Byeol-nae CCPP



Temporary Piping
CPH Supply & Return Line



Temporary Piping
BFP LP&HP Supply Line



Temporary Piping
Waste Water Transfer Line



Steam Drum Inside
Test Piece Install



Chemical Injection



Passivation Water drain to
Waste Water Pond



Chemical Cleaning View



Before chemical cleaning
Steam Drum



After chemical cleaning
Steam Drum

Chemical Cleaning
Cote d'Ivoire
Azito Phase 3 Extension
Project



Liquid detergent(NP-10) injection



Chemical cleaning after inspection



Temporary piping for pump



Waste water transfer piping



CEP Connection pipe



HP BFP Discharge line connection pipe



Pig Cleaning View



Pig Launcher
Ras laffan, Qatar



Pig Launcher
Ras laffan, Qatar



Pig Cleaning Execution



Brush & Sponge pig



Brush & Sponge pig



Pig launcher



Pig receiver



Pig receiver



After pig cleaning



Oil Flushing View



POSCO-Vietnam
Cold Rolling Mill Plant



DAEWOO SHIPBUILDING & MARINE ENGINEERING-Geoje
Tungsten Explorer Derrick



Oil Flushing Execution



Hyundai Steel-Dangjin



Hyundai Steel-Dangjin



Hyundai Heavy Industries-Ulsan
BP PLUTONIO Project



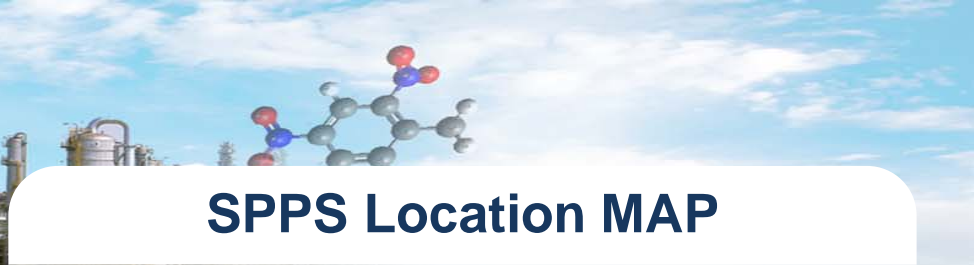
Hyundai Heavy Industries-Ulsan
BP PLUTONIO Project



Particle counter



Particle counter



SPPS Location MAP



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Tel : +82-2-2666-1681~2 Fax : +82-2-2666-1683

THANK YOU



SPPS Corp the company that's first to put you first.

SPPS



SPPS Corp.

222, Gonghang-daero, Gangseo-gu, Seoul, Republic of Korea

TEL:++82-2-2666-1681~2 FAX: ++82-2-2666-1683

e-mail: mail@sejongchem.co.kr

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