CHUBU
Electric Power Group

CORPORATE GUIDE

Chubu Plant Service Co.,Ltd.

Chubu Plant Service

Corporate slogan

キラリの技、ホットな心

Splendid Craft & Passionate Hearts

We strive to become an
"engineering service company that creates values required by customers,"

We provide value innovation engineering services(Vies) in power plants and other energy plants, which are trusted and satisfied by customers, and establish the status of No. 1 engineering service company in terms of customer satisfaction.

Corporate philosophy

- **Customers first**
- **Contribution to society**
- **Respect for human dignity**

Declaration of action

Always having high morality;

- We always think from the viewpoint of customers.
- We provide services that can be satisfied by customers.
- We put all our efforts into contribution to prosperity of society and actualize ourselves through the company's business.
- We create places of work where people respect individuals and can work lively.

Akira Kuriyama
President and CEO
Chubu Plant Service Co., Ltd.

Ever since our establishment in 1961, Chubu Plant Service has contributed to supplying energy by installing and maintaining various types of equipment for thermal and nuclear power generation. As a member of the CHUBU Electric Power Group, we have provided supply of electric power that is not only safe and stable but also affordable.

We continue to provide integrated plant services from research, consultation and basic design to installation, maintenance, and after-sale services for a wide range fields such as power generation equipment for reusable energy, gas supply equipment, petrochemical plant equipment, environmental and waste treatment equipment.

As the energy industry and the society as a whole are undergoing major changes, we will continuously refine our unique technological capabilities and competitiveness and aim to become a reliable “best partner” for our customers.

「つくる」

“Construction”

Our experienced engineers in the area of power plants and petrochemical plants cooperate and get involved from the planning stage of construction work to deliver excellent plants and facilities that achieve customer satisfaction.

LNG pipe installation work

E 設計 ENGINEERING

We make every effort to adopt optimum design in plants and facilities that customers require. Our professional engineers aim to provide design and engineering services in anticipation of customers’ needs by adopting new technology or improving processes and methods of construction from basic design to detailed design.

Design work by using 3D CAD system

Construction work for distilling column in oil refinery

We have a good track record in construction of various plants and facilities in the fields of oil, chemicals, LNG, etc.

Ammonia equipment

P 調達 PROCUREMENT

We choose and procure equipment, devices and materials best suited to customers’ plants and facilities from a variety of our suppliers.

LNG satellite installation work

EPC

Construction work at our woody biomass power plant
“Taki Biopower”

Construction work at photovoltaic power plant

We also provide customers’ plants and facilities with our know-how developed in planning, design, efforts to comply with laws and regulations, construction work, operation and maintenance of our own plants and facilities including photovoltaic power plants and woody biomass power plants.

Welding work subject to inspection by welding operator under Electricity Business Act

Status of pipe processing and finishing at Oe Plant No. 1

Oe Plant No. 1

High quality pipe fabrication in our own factory ensures smooth construction work in the field. We also respond to welding work that requires a high level of skills and techniques, including welding work subject to an Operator’s Inspection on Welding specified in Electricity Business Act.

C建設 CONSTRUCTION

We build high quality plants and facilities with bearing in mind that safety should come first at construction site, and hand over them to customers.

Control device installation work

We respond to the requests from customers by providing total coordination of plant components from pipes and equipment to electrical instruments, measuring instruments, control devices and others.

Installation work of facilities to receive extra-high voltage power

「たもつ」

“Maintenance”

With our experience obtained over years and reliable technological capability, we support maintenance and management of customers’ plants and facilities.

Rotary machine diagnosis in condition monitoring and maintenance work at Hamaoka Nuclear Power Station

O 運転 PERATION

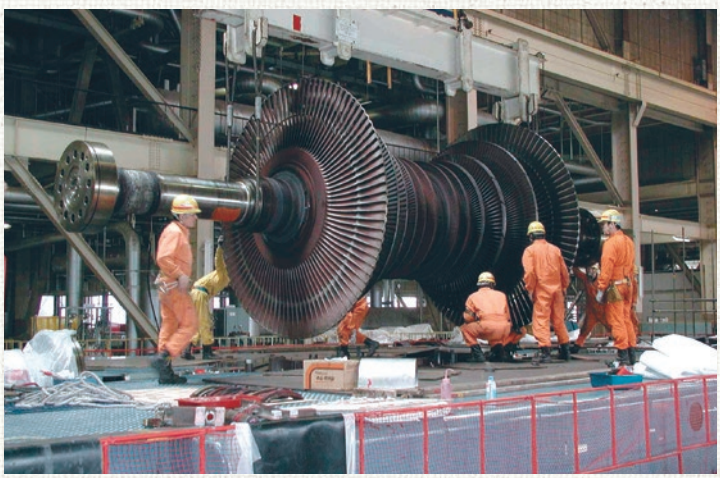
Our operators with abundant experience in power plants and energy supply facilities contribute to stable operation of customers’ plants and facilities.

Operation of radioactive waste treatment facility at Hamaoka Nuclear Power Station

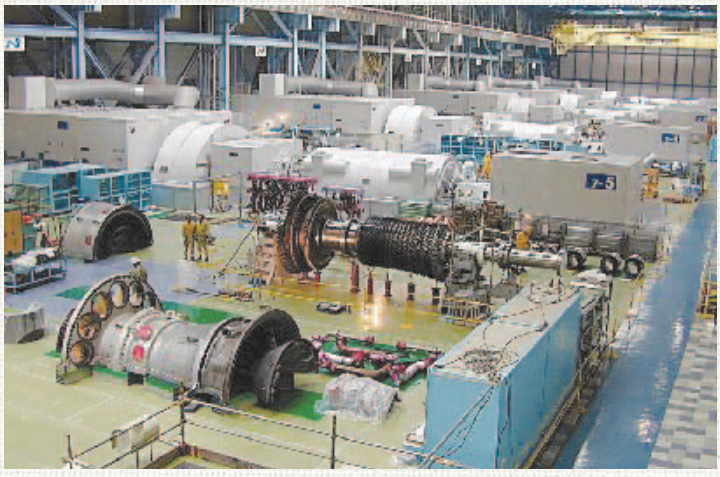
M 保守 AINTENANCE

We combine our expertise and professionalism developed over years in thermal power plants and nuclear power plants to create a great force, and satisfy various needs from customers in a variety of industrial fields with always paying attention to safe construction work and achieving high quality.

By establishing our maintenance facility at customers’ plant sites, we conduct daily maintenance and inspection work, formulate a customer’s maintenance plan, and provide emergency response services. Our technological capability developed through experience and achievement over years, including development of an optimum solution on problems related to devices and equipment, can provide a high value-added service.



Periodic inspection of steam turbine at Hekinan Thermal Power Station



Periodic inspection of gas turbine at Shin-Nagoya Thermal Power Station

O&M

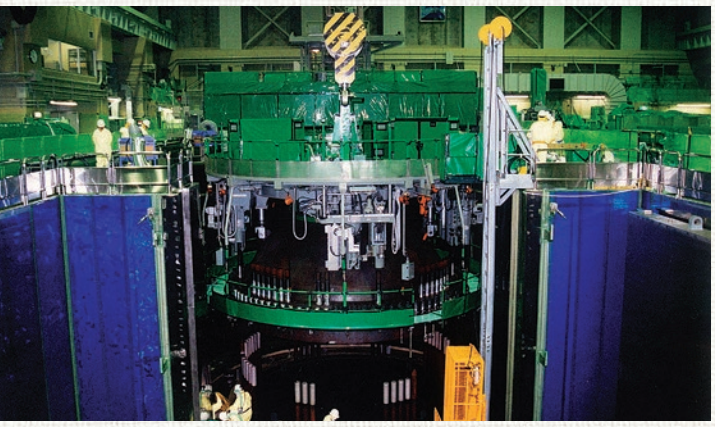
We provide checking, inspection, repair and modification services from machinery and equipment to electrical instruments and measuring instruments in various plants and facilities such as oil plants, chemical plants, gas supply facilities, waste incineration facilities, in-house power generation facilities, and photovoltaic power generation equipment.

Inspection of high-voltage motor

Ultrasonic testing of high temperature bolt

Evaporation pipe welding work

Test control of electrical equipment



Periodic inspection of nuclear reactor equipment at Hamaoka Nuclear Power Station

With taking advantage of our experience in operation of our own power generation equipment, we give support in operating and maintaining customers' plants and equipment.

Panoramic view of our photovoltaic power generation equipment "Atsumi No.2"

We help proper maintenance of customers' plants and equipment with our technological capability that has supported stable operation of thermal power plants and nuclear power plants. Based on our maintenance experience accumulated since the start of power generation at Hamaoka Nuclear Power Station, we conduct safe and secure dismantling work and proceed with decommissioning work that can gain the trust from the surrounding local communities.

「ささえる」

"Support"

Our reliable technology and secure management system support the field work, resulting in satisfaction of customers' expectations.

T技術 ECHNOLOGY

Welding

While improving and expanding welding capability as a welding factory specified in Article 52 of Electricity Business Act since 1965, we have mainly involved in welding work subject to an Operator's Inspection on Welding and contributed to ensuring reliability of customers' plants and equipment. In cooperation with our construction work design section, section of welding work subject to an Operator's Inspection on Welding and non-destructive testing section, we deliver a comprehensive service from efforts to ensure compliance with laws and regulations to welding plan preparation, welding work and inspection of welds.

[Instrument repair]

Welding works in accordance with Electricity Business Act.

We also have obtained certification of welding procedures in accordance with Gas Business Act. Our welders with reliable skills to respond to various welding needs conduct welding work from general structure to pressurized parts under high temperature and high pressure conditions in various industrial plants and facilities.

Evaluation and certification of the welding management process

- Assessment and registration agency: Japan Power Engineering and Inspection Corporation
- Registration number: GPC-054

Inspection

Inspection and diagnosis

Providing various inspection and remaining life assessment services by experienced professional engineers.Taking advantage of abundant data and know-how,our professional engineers check the soundness of equipment, examine the status of degradation, pinpoint the cause of equipment failure and assess remaining life. In addition, we suggest the optimum maintenance method.

[Inspection]

Liquid penetrant testing, magnetic particle Testing, ultrasonic thickness measurement, radiographic testing, ultrasonic testing, hardness measurement, etc.

[Equipment diagnosis]

Rotary machine diagnosis, digital radiographic testing, thermal image equipment diagnosis, diagnosis of equipment deterioration and remaining life (microstructure observation and scale intensification) and metal material assessment and diagnosis.

FCR diagnosis: We give a diagnosis on internal corrosion or clogging of any components of customers' plants and facilities without disassembling such components by conducting radiation transmission test using a diagnosis vehicle.

Vehicle type digital radiography system (Inspection Technology Center)

Analyzing elements with electron probe micro analyzer

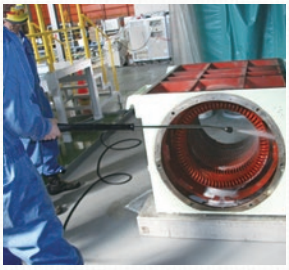
Microstructure observation by electron microscope

Repair of electric motors

We promptly and securely put our efforts into fault repair as well as maintenance and recovery of electric motor functions.

Washing repair

We wash and dry coils of electric motors in operation for long time at our factory to recover their lowered insulation and cooling functions due to dust and lubricating oil for bearings accumulated inside the electric motors and prolong their service life.

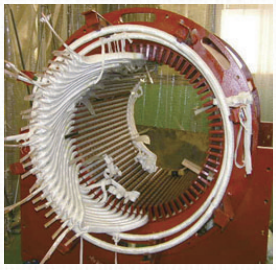

Washing of electric motor

Drying in vacuum dryer

Insulation measuring equipment

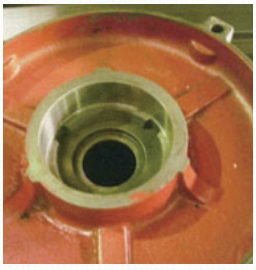
Coil rewinding service

We provide coil rewinding service if any break or damage of coils occurs. Coil rewinding service is provided at factories of our partner companies with a good track record. We can also provide emergency response service in a short delivery period if coils suddenly break down.


Stator coil rewinding

Other repair services

Our partner companies with appropriate expertise conduct repair work such as spraying repair for brackets or shafts and manufacturing of parts including brackets and cooling fans for replacement.


Repair of brackets by spraying

Chemical cleaning of boilers

If a large amount of scale accumulates in steam pipes for boiler operation, various troubles would happen in addition to reduced thermal efficiency. Chemical cleaning of boilers can remove scale and recover boiler functions.

Procedure

Study of accumulated scale → Chemical cleaning of boilers → Waste water treatment

Effectiveness

Effects of chemical cleaning → Prevention of troubles due to accumulated scale | Recovery of thermal efficiency | Extended service life of pipes

「ささえる」

T 技術開発
ECHNOLOGY DEVELOPMENT

Development of technology supporting efficiency, safety and quality

We have put main focus on development of devices and equipment that can save labor in maintenance work and improve safety and quality. Moreover, we have developed devices that can conduct complicated work that is usually assigned to skilled workers while ensuring an equal to or higher level of quality, if such skilled workers retire, thus contributing to cost reduction of field work.

〈Our developed product〉

Air preheater rotor tire cutting device

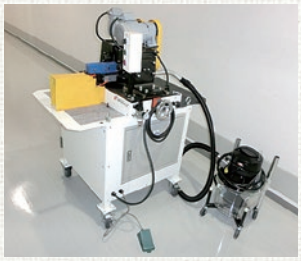
In order to evenly cut rotor tire of air preheaters in thermal power plants, we have used a bite to cut rotor tire to date. However, we have developed a cutting device that can conduct this cutting work more efficiently and realize safe and high quality finish in the field.

P 商品販売
RODUCT SALES

Commercializing ideas and technologies to support customers' operations

To meet the diversifying needs of our customers, we handle products that have been developed on the basis of our expertise in power plant maintenance and a myriad of other areas with considerations for "cost reduction," "environment," "safety" and"quality."

Zcap (jig for blank flange)
It can realize easy and secure closure of a blind flange without bolting by simply turning the wheel for setting.



La-Sengi (bolt polisher)
It can polish bolts rapidly without dirtying surrounding areas.

JIN-GI (bearing cracker)
It can disassemble bearings without damaging them.

Zespa
(open method of insulating materials)
It can easily cut and open insulating parts by simply pull the string when connection is open.

Large diameter bolt polisher

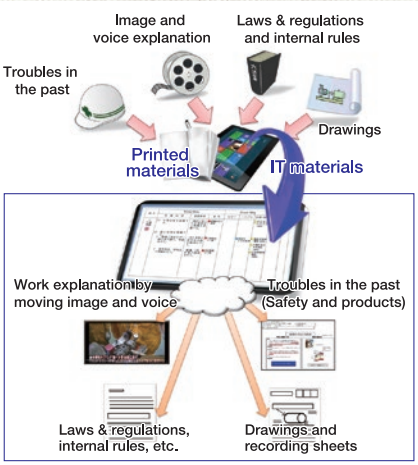
The use of DiosKuroi and Go-Riki in combination realizes polishing of bolts with a large diameter of 3.5 to 8 inches. Bolts can automatically be turned and polished by just putting them on Go-Riki and hold them by DiosKuroi.

DiosKuroi
(Large diameter bolt polisher)

Go-Riki
(Bolt jack-up rotary table)

Production of IT materials for education purpose by commissioning

Making good use of IT materials in a learning process leads to efficient instruction and improved understanding.



E 人材育成
DUCATION TRAINING

Human resource development
Developing human resources with consistent educational system

We employ a consistent educational system to nurture independent-minded personnel who can take on the responsibility of leading technological innovation with awareness as a member of an engineering service company in a well-planned manner based on their career plan. In our human resource development which places emphasis on on-the-job training (OJT) at each workplace, we offer technology education trainings at Human Resource Development Center with a variety of training equipment and materials as well as general educational trainings for different employee levels including beefed-up training curricula such as communication and leadership training programs. In addition, we actively provide support for personal development to learn a wide range of technology and knowledge.
In practical education at Human Resource Development Center, we use tablet computers containing IT education materials developed by ourselves for improved understanding and highly efficient training.

Human Resource Development Center

Steam turbine disassembly and assembly training

Education with using a tablet computer

S 安全・品質
AFETY QUALITY

Safety activities

Supporting sophisticated corporate activities with thorough self-management

Consistent efforts to instill shared awareness for safety assurance and management system. Our engineering works and maintenance operations under a company-wide safety management system are conducted to ensure safety at all times with the target of "zero instance of occupational hazards."

All employees take part in pointing and calling

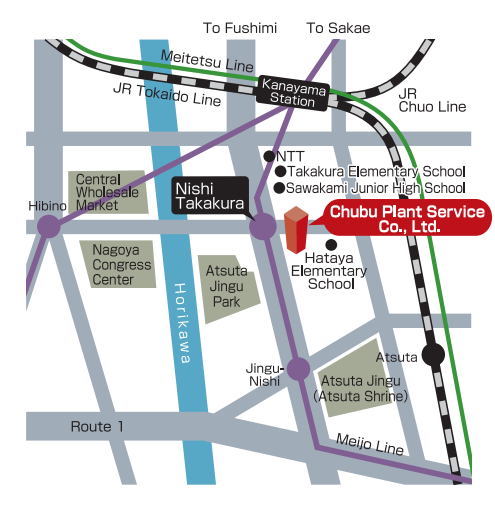
Education to experience unsafe situation at work in training course.
(Experience of hanging in the air by using safety belt)

Quality assurance

Always provide high quality engineering services

With contribution to stable supply of electricity and other energy as our largest responsibility, we have established a quality management system to improve the "reliability," "assurance" and "satisfaction" of customers, and acquired IS09001 certification.

- Assessment and registration agency:
  Japan Power Engineering and Inspection Corporation
- Registration number: QSR-O11
- Scope of Products: Services associated with design, construction, maintenance and operation of thermal/nuclear power plants and other types of plants



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Chubu Plant Service

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