

# REKAYASA DAN TRANSPORTASI

SBU ENGINEERING AND TRANSPORTATION



## KAJI ULANG RANCANG BANGUN DAN PEREKAYASAAN

Evaluasi teknis guna meminimalkan resiko akibat kesalahan rancang bangun barang modal/bangunan (tahap produksi/konstruksi).

Evaluasi Perencanaan dan Penjadwalan Proyek

Evaluasi guna meminimalkan resiko akibat kesalahan perencanaan dan penjadwalan proyek (tahap pelaksanaan proyek).

## REEVALUATION OF INVENTION BLUEPRINT

*A technical review will be made to minimize the risk caused by mistakes in the blueprint of capital goods/construction (production/construction stage).*

*Project Schedule Planning Evaluation*

*This activity is aimed at minimizing the risk due to mistakes in the project's planning and scheduling (implementation stage).*

## JASA SURVEY KELAUTAN DAN ASURANSI

Jasa survey kelautan dan asuransi yang ditawarkan oleh SUCOFINDO antara lain meliputi (tapi tidak terbatas pada):

## MARINE SURVEY SERVICES AND INSURANCE

*SUCOFINDO offers marine survey and insurance services including (but not limit to):*



### Survey Kelautan:

Survey kondisi alat angkut sewaktu/setelah di sewa, tingkat kerusakan pada rangka/mesin kapal, berat kargo berdasarkan pembacaan draught kapal, kelayakan dari alat angkut untuk menerima suatu jenis kargo tertentu, jumlah bahan bakar, kondisi bangunan/mesin kapal pada saat akan diperjualbelikan, ruang pendingin, kondisi peti kemas sebelum dipergunakan/diserahkan serta survey kelengkapan peralatan dan kebersihan tank container.

### Survey untuk Kepentingan Asuransi:

Survey pemenuhan persyaratan implied warranty pengangkutan laut, tingkat kerusakan kargo, pemenuhan persyaratan pengajuan klaim dan pembuktian suatu kasus kerugian yang diajukan.

### Marine Survey:

*Surveys on the condition of on/off hire transportation equipment, damage of ship's hull/machinery, cargo weight based on draught survey, appropriateness of the transportation equipment to carry certain cargos, fuel volume, ship's cargo gear and accessories, pre-purchase ship's hull/machinery, cold storage rooms, the container before and after use, hatch/tank cleanliness.*

### Insurance Survey Service:

*Surveys on conformity of implied warranty in sea transportation system, cargo's damage level, claim settlement and investigation for losses claimed.*

**SUPERVISI PROYEK**

Pengawasan secara kualitatif dan kuantitatif guna meminimalkan resiko pembiayaan dan teknis akibat ketidaksesuaian dengan rencana, jadwal dan biaya proyek (tahap pelaksanaan proyek).

**Pemantauan Penyelesaian Proyek**

Suatu kegiatan pemantauan terhadap pelaksanaan suatu rangkaian pekerjaan (milestone) dari tahap awal sampai berakhirnya proyek tersebut.

**Survey Kuantitas**

Pemeriksaan atas spesifikasi dan jumlah material yang digunakan dengan mengacu kepada waktu dan biaya yang telah disetujui dalam dokumen kontrak.

**PROJECT SUPERVISION**

*Qualitative and quantitative supervision aimed at minimizing technical and budgeting risks due to the non-conformity to the project's planning, scheduling and budgeting pre-requisites.*

**Project Completion Monitoring**

*A monitoring activity over the establishment of milestones from the initial stage until the completion of the project.*

**Quantity Survey**

*An activity to examine the specifications and quantities in use referring to the time and costs agreed upon in the contract.*

**JASA SUPERVISI PROYEK INVESTASI****INVESTMENT PROJECT SUPERVISION SERVICES****Studi Kelayakan**

Penelitian guna meminimalkan resiko akibat kesalahan penetapan asumsi dan estimasi pada aspek-aspek kelayakan suatu rencana investasi (tahap produksi).

**Evaluasi Keandalan Barang Modal**

Kaji ulang teknis guna meminimalkan resiko akibat kegagalan kinerja barang modal (tahap produksi).

**Feasibility Study**

*This research is aimed at minimizing the risk due to misstated assumptions and estimations on the properness of the aspects of the investment plan (production stage).*

**Capital Goods Reliability Evaluation**

*A technical review will be made to minimize the risk caused by the malfunction of capital goods (production stage).*



## UJI TANPA RUSAK

Dalam melaksanakan pelayanannya, SUCOFINDO melakukan pengujian tanpa rusak serta pengawasan pengelasan.

- Menggunakan Metode Radiasi:  
Pengujian material/sambungan las dengan radiografi sinar-X dan sinar gamma.
- Menggunakan metode non-radiasi:  
Pengujian material/sambungan las dengan uji ultrasonic (pengukuran tebal, deteksi cacat pada bahan atau sambungan las), uji partikel magnetic (deteksi retakan permukaan/dibawah permukaan), uji penetrant cair (deteksi cacat/retakan permukaan) dan uji Eddy current (deteksi korosi, erosi dan retakan permukaan /dibawah permukaan dalam pipa).

### Pengawasan pengelasan:

Termasuk pembuatan spesifikasi prosedur pengelasan dan laporan kualifikasinya, serta spesifikasi juru las.

### Evaluasi Perencanaan Anggaran Biaya Proyek

Evaluasi guna meminimalkan resiko akibat kesalahan perencanaan biaya proyek dan memberikan rasa aman pada pemilik modal (tahap pelaksanaan proyek).

## NON DESTRUCTIVE TESTING

In providing the services, SUCOFINDO conducts non-destructive tests and welding inspections.

- Using Radiation Method:  
Testing on material/weld-joints are made by X-Ray and Gamma radiography.
- Using non-radiation method:  
Testing on material/weld joints by ultrasonic tests will test: thickness measurements, and flaw detection using magnetic particle evaluation, and surface/sub surface crack detection. Also, using Eddy current testing, they will provide erosion and crack detection for tube internal surface/sub surface corrosion.

### Welding Inspection:

The composing of Welding Procedure Specifications (WPS), Performance Qualification Records (PQR), and Welder Certification itself.

### Project Budget Planning Evaluation

This activity is aimed at minimizing the risk due to mistakes in planning the project's budget and is planned to provide a feeling of security for the shareholders (implementation stage).



**JASA INDUSTRI DAN REKAYASA****INDUSTRIAL AND ENGINEERING SERVICES**

SUCOFINDO memberikan jasa engineering dan pemeriksaan atas kondisi serta mutu peralatan industri melalui:

**Pemeriksaan Kualitas dan Kondisi**

Pemeriksaan kondisi atas mesin-mesin dan peralatan, pengujian untuk kerja, pengawasan mutu selama fabrikasi, pengawasan kemajuan pekerjaan selama fabrikasi dan instalasi, pengujian mutu dan analisa kekuatan sisa umur peralatan-peralatan dan instalasi.

*SUCOFINDO is offering engineering and inspection services on the condition and quality of equipment through the following activities:*

**Condition Survey & Quality Inspection**

*Inspections will be made first in the condition of the machinery and equipment, then on the functional testing processes, the quality control in the fabrication and installation procedures, and lastly the quality tests and power analyses of equipment and installation for the rest of usage period.*

**Sertifikasi**

Sertifikasi atas mesin-mesin dan peralatan untuk mendapatkan SKPP (Sertifikasi Kelayakan Penggunaan Peralatan) dari MIGAS, SKPI (Sertifikat Kelayakan Penggunaan Instalasi) dari MIGAS dan IP (Ijin Penggunaan) dari Depnaker.

**Certification**

*Certification on machinery and equipment to obtain a Certificate of Equipment Proper Usage (SKPP) from MIGAS (Directorate General of Oil and Gas), a certificate of Construction and Instalation Proper Usage (SKPI) from MIGAS, and Empowering Licence (IP) from the Ministry of Manpower.*

**Pemeriksaan Mesin & Peralatan Bukan Baru**

Pemeriksaan mesin dan peralatan yang diimpor dalam keadaan bukan baru, yang merupakan pelaksanaan dari SK Menteri Perindustrian dan Perdagangan, jasa ini dimulai dari tahap perencanaan, pengadaan, pembuatan, pemasangan dan operasional.

**Inspection of Used Machinery and Equipment**

*Inspection of the imported 'used' machinery and equipment will be made in order to comply with the decree of the Minister of Industry and trade. These services cover all stages of planning, purchasing, fabrication, installation and operation.*

## JASA SERTIFIKASI OTOMOTIF

Kami mengembangkan system pengujian dan sertifikasi otomotif guna menunjang pelaksanaan system pengendalian kelaikan jalan otomotif di Indonesia melalui pengujian emisi, survey kondisi dan sertifikasi.

**Verifikasi Otomotif**

Jasa verifikasi dan pemantauan di bidang otomotif, yang meliputi: verifikasi kemampuan industri dan verifikasi dokumen & data.

## AUTOMOTIVE CERTIFICATION SERVICES

*We have developed a testing and certification system to assist the implementation of automotive conformity tracking control in Indonesia by conducting emission testing, condition surveys and certification procedures.*

**Automotive Verification**

*Verification and audit services in automotive industries include verification of industry capabilities, their data and documents.*



## SERTIFIKASI ISPS CODE

Pentingnya keamanan maritime melatar belakangi International Maritime Organization (IMO) mengambil kesepakatan untuk menerapkan International Ship and Port Facility Security (ISPS) Code 2002 bagi kapal dan fasilitas pelabuhan yang melakukan perdagangan internasional.

Pemerintah Indonesia telah menetapkan PT SUCOFINDO (Persero) sebagai salah satu RSO (Recognized Security Organization) yang bertugas untuk melaksanakan Ship Security Plan (SSP), Ship Security Assessment (SSA) dan melaksanakan Port Facility Security Assessment (PFSA).

Sertifikasi ISPS Code berlaku kepada kapal penumpang, kapal barang, unit pengeboran lepas pantai berpindah dan fasilitas yang melayani kapal-kapal yang melakukan pelayaran internasional.

## ISPS CODE CERTIFICATION

*The importance of maritime security becomes a basic concern for International Maritime Organization (IMO) to set an agreement in place called the International Ship and Port Facility Security (ISPS) Code 2002 for all kinds of ships and port harbour facilities in order to conduct international trade activities.*

*The Indonesian Government has certified PT SUCOFINDO (Persero) as one RSO (Recognized Security Organization) to conduct the obligation for implementing Ship Security Plan (SSP), Ship Security Assessment (SSA) as well as Port Facility Security assessment (PFSA)*

*ISPS Certification Code is applied to commercial shipping lines, shipping cargo, offshore drilling units, port and harbour facilities which accommodate international shipping lines.*