



EMPRESA PÚBLICA FLOTA PETROLERA ECUATORIANA

FUNCTIONAL SPECIFICATIONS

General - Support:

- Must have support offices at a global level across America. Phone assistance (English and Spanish spoken)
- Stability in the world maritime software market
- Approved software and in continuous operation at a global level for at least 5 years.
- Designated administrator for our account (fleet of 7 vessels and headquarters)
- Guarantee a consultancy service mean while annual maintenance is contracted.
- As part of the annual maintenance, we must have the right to receive regular updates without any additional fee.
- Research team and manufacturer service, subcontracts not accepted.
- Must be given an online portal for immediate consultations, this option should allow to track or follow-up of reported cases and solutions.
- Promote conferences and participative presentations to enhance the expertise in the use of software.

Compensation:

- Possibility to acquire a license at a lower cost when required.
- The offeror must explain in its technical and economical offer, the procedure to re-use licenses in the case of the sale of a vessel.

Design:

- the software must have the philosophy of fleet management
- The solution should contain a set of scalable modules to cover all ship management.
- Should have interfaces that allow the integration with ERP's
- The solution as much as possible must contain intuitive dashboards
- The platform should be stable, tried and tested
- The system must be approved by one of the classification society of IACS, as soon as the team structure and class routines are loaded.

Database:

- Contain a database like infrastructure in the office to create/copy in twin vessels
- The new solution, must allow migrate data related to: items/spare parts/ material/ provisions, accounts, providers, maintenance plans, etc, (this information is currently residing in another technical system).



Experience:

- The provider shall demonstrate a significant growth in the last two years.
- The software must be designed exclusively for the shipping industry for the transportation on hydrocarbons.
- Experience in technical support.

Integration:

- Easy settings and configurations required to incorporate information with other systems.
- Shall demonstrate experience with other systems of any third parties like: ERP Comercial (IMOS), Documentary.

Security:

- Safety base on administrators and systems users levels. Must count with execution of transactions log registration and must provide an option for consultations.
- Must allow its restoration in case of any disaster (end to end backup and recovery)

Category:

- Include categories for ranks, crew, specialties, contractors, types of maintenance (use and repair of history), personnel expenses, projects, events, implementation of new regulations, maintenance intervals, spare parts catalogs, categories of material, lubricants, fuels, log, zafarrancho, hour counters, warehouses and boxes, manual, etc.
- The system must have an option to upload maintenance videos or make a reference for the location through a link; or allow them to upload a documentary system.

Communication – vessels/offices/ vessels:

- Must have an online communication options with offices for synchronization of information (vessels-offices); also must have a communication option for batch field. These files can be transferred by email or automatically to and from offices by satellite communications.
- The offeror should provide technical equipment specifications required to perform online vessel and offices communications; and its batch file transfer. Is also required a complete end-to-end architecture of the solution.
- Provide a certificate of a well functioning system and a reliable communications between vessels-offices-vessel.
- The system must allow attaching annexes to the transactions or records that are made in the system (vessels or offices); the synchronization of the information must transfer this

attached documentation. The system should have internal options of the information compression for the synchronization.

- Day-to-day vessel-office-vessel transactions should be strictly necessary to reduce costs of satellite communications.

Repair and maintenance of machinery and equipment; planned maintenance (preventive), Repairs (corrective maintenance);

The software should schedule daily maintenance tasks based on primers that include:

- Codification and working title
- Work orders, corrective maintenance
- General Job description to be accomplished. It must have an option that allows linking a manufacturer's manual.
- Include graphics or schematic plans
- Labour force used
- Spare parts and/or used materials
- Technical summary of work done
- Link with spare parts inventories and/or materials
- Damage control/near-accidents
- Registration/ continuous machinery control inspections
- Designed around the concept of "condition monitoring", and risk matrix(reliability centered maintenance)
- For each one of the options mentioned before, the system must allow to create dynamics reports.
- Maintenance tasks must be driven by a hierarchy concept machinery-system/equipment-component
- The design must allow the management of the ship, by a group of vessel or by fleet
- The scheduling date should be produced automatically as well as its final date for the execution of the work. The system must submit an alert (by mail or colour marking), to indicate the proximity or execution due date
- The scheduling must be made based on hours, months or years of service
- Daily tasks must become part of a historic that can be consulted or reported at any time. Reports must be dynamic.
- The registration must include the time taken on completing the task
- The registration must be made by the vessel's crew, by contractors, or by shipyards
- Must allow rescheduling dates for execution of the daily tasks if is required
- Be allowed to calculate value of maintenance statistics

- The system must allow to obtain materials costs and consumptions statistics/ spare parts by different criteria (date ranges, vessels, item code, etc)
- The technical summary must allow text input, include tables and cells or include imported documents and graphics
- Must allow record of risk evaluations/ lessons learned
- Must be interoperable with fields related to risk analysis, in order to carry out evaluations.
- Should include classification societies information
- Must allow the registration of the crew who performed the work with their respective names
- Once the maintenance structure is implemented, as far as possible include a tool to re-schedule dates when required.
- Account labour force cost in normal category, with extra hours and special work
- Account spare parts and material cost as budget and actual consumption, in each maintenance task
- At the time of registering the consumption of spare parts and/or materials, the system must discount it from the inventory and automatically updated
- Allow to calculate statistics of spare parts and material inventory: in existence, entered, consumed, damage, re-located
- Allow a statistical report with a different criteria of historical research, current, future
- Include tools to analyze historical events of different nature

Hull – inspection and maintenance scheme:

The software must schedule task based on cards that include:

- Coding and inspection title
- General description of the inspection or the performed compartment
- Include graphics or schematic plan
- Technical summary of abnormalities or new developments found in the inspection
- Generate a work preventative maintenance order/ corrective from maintenance reports
- Enter the hull structure condition in a graphic file
- The software must allow the inspection programming, revision, registration, reports, class approved, save data
- The system must be authorized for user with different roles as: Superintendents, inspectors, vessel crew. Each role must have access to different options, that they must be established and configured by the system administrators
- The software must allow the identification, focus and revision for future decision-making like reports and high level analysis
- Allow consultation by vessels, group of vessels or entire fleet and any other search criteria

- Develop the inspection status or ongoing maintenance to sum up the hull general condition
- Allow a statistical report with a different criteria of historical search, current and future

Dry dock - dry dock planning:

- Incorporate dry dock planning and maintenance activities. Must allow the user to program dry dock activities
- The system must transfer information of the expenses incurred by maintenance, as well as direct purchases during dry dock period, the system ERP
- Link hull inspection results or the preventative maintenance to dock activities
- Generate quote solutions to different shipyard about dry dock work (quote generation) such applications could include documents who may be loaded into the system or its own documentary system' option
- Handle quotes and work orders with shipyards
- Generate an executive dry dock project summary that includes time of activities execution, budget and real costs
- Maintain a historical of accomplished dry docks and its future programming
- The system must issue risk warnings or notifications to warn against the proximity of a dry dock execution. The alert time should be configurable
- Allow a statistical report with different criteria of historical research, current and future

Classifications and regulations – continuous of machinery:

- The system must approved by an IACS member
- The system must considered all vessels items machinery(independent class)
- Allow the automatic updating of inspections and certifications of continuous of machinery
- The system must allow to be updated with new regulations and changes in the shipping industry. This update must be automatically and or manual
- The system must allow upload and update class regulations (example rulefinder de Lloyds)

Purchases and inventories - purchase of spare parts and materials:

- Database as infrastructure of spare parts and materials for each one of the machinery, equipments, vessels and fleet
- The system must allow to upload and update material catalogs/ spare parts/ marine use components; which pre-existed in magnetic media or can be downloaded from the internet (example catalog ISSA, IMPA, etc)
- Spare parts and materials Database that includes information of technical specifications, manufacturers, manuals, schematic plans, pages and images

- Spare parts and materials database with criticality criteria and security stock
- Link between the database and preventive maintenance plan
- Generation of requisitions spare parts orders and /or materials from the vessels
- Evaluation and approval of orders of spare parts and materials including the physical existing stocks on board, the orders in process and the quantity requested by the vessel(with the possibility of updating this quantity).
- Generate requests for quotes, evaluation tables in the diverse currency offers, purchase and delivery orders.
- Monitoring of orders and goods in ships, agencies, shipyards and manufacturers.
- Every spare part/material/item/ ship component should be associated with a balance sheet account and a budget line; as well as its respective location. It must be considered that a ship can have more than one site.
- The system must allow generating the following reports:
 - ✓ Purchase orders with committed values
 - ✓ Effective payment report
 - ✓ Review of the previous purchase price of a spare part/materials/etc. (For the analysis, previous verification or question that the system can generate).
- Generate payment orders (with the option to allow making anticipated payments).
- Liaison of the payment orders with the finance-accountable system of the Organization.

INVENTORY CONTROL

- An inventory control system per ship (can be consulted at field offices and vessels).
- Reception of orders and automatic update of the existence of spare parts/materials/etc.
- Must be linked with the maintenance plan, for the discount and automatic update of the stock.
- Allow a stock update through a physical inventory. It must allow to register the observation, in case the update was done.
- As data base it must contain a strong structure, trustworthy warehouses and storage boxes.
- Statistical report with historical, actual searching criteria valued in tendency of warehouse per ship.

TEST QUALITY MANAGER - HEALTH, SECURITY, QUALITY AND ENVIRONMENT

- Keep internal and external historic records of audits of the offices and ships.

- Document a record of accidents, incidents, exercises and inspection reports, non-compliances and corrective measures.
- Integrated with the maintenance modules, purchases and personnel or crew management.
- Incorporate a Root Cause Analysis procedure with a report to be referred to the class.
- Broadcast the non-compliance s and corrective measures to the ERP that the organization appoints.

VETTING MANAGER - INSPECTION OF THE REGULATORY COMPLIANCE

- Integrated to the module or corrective and preventive maintenance plan.
- Deal with the inspection events through a planning tool.
- Document the record of inspections and answers to the eldest oil companies.
- Accept different versions of documents VIQ (Ship Inspection Questionnaires)
- Provide certifications per class.

PERSONNEL ADMINISTRATOR - ACADEMIC INFORMATION AND PREPARATION

- Add crew's personal information, courses, certifications.
- Register the personnel's status in vacations, courses, with medical leave, on board in a ship.
- Crew shipping planner in the different vessels of the float.
- System alert of the crews' documents nearing their expiration dates.
- Crews' historical and current profiles including picture.

DATABASE MIGRATION - SES-OFFICCE + SES- VESSEL (7 vessels).

- Database migrations from its actual software (SES-OFFICE/VESSEL) to the new platform (Offices + 7 Ships)
- Data table validation after the migration.

CONSIDERATIONS OF THE SCOPE

- By taking control of the: SHORE BASED MAINTENANCE, corrective maintenance and outsourced teams of the Government Bridge; you must have access to the Maintenance module
- By keeping track of the: CLASS and STATUTORY Inspections, required the access to the module: CLASSIFICATION REGULATIONS (CONTINUOUS OF MACHINERY)

- In approving the purchase of equipment and related systems equipment BRIDGE OF GOVERNMENT, BAILOUT AND SECURITY; is necessary and required the access to the modules: BUY and INVENTORY on the approval.
- There must be a document management system to centralize information of importance and interest to the solution: technical-shipping