Needs analysis for preventive and corrective Maintenance in the building of the representative office of Suframa in Porto Velho/RO.

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SUMMARY

This needs program aims to support and justify the need for contracting company specialized in services of preventive and corrective maintenance, to ensure the preservation of the building components as well as the health and comfort of crowded servers in that Office. We analyzed aspects of the superstructure, hidrossanitárias facilities, locks, floors and coverings, casings, sanitary vitreous Chinaware and metal, equipment, paintings, covering and roof, impermebialização, in addition to the electrical installations. After the analyses was noted the need for maintenance through a specialized company, aiming at the extension of the useful life of the property, heritage preservation, improvement in aesthetics, among other benefits.

Keywords: building maintenance, Superstructure, electrical installations.

INTRODUCTION

The representative office of SUFRAMA in Porto Velho, in Rondonia State, was built by the Municipality for more than 20 years. During all this time building maintenance were performed, which allied with adequacies and preventive and corrective maintenance, in order to provide the conditions of safety, reliability and preservation of their structures, as well as your proper functioning. In 2014 won the period of renewal of the contract for the preventive and corrective maintenance, getting the property without Maintenance until the current time. According to François Monchy (1991), the term "maintenance" has its origins in a military term, meaning "keep in combat units, and the material on a constant level.

With the dynamic process related documents, structural changes occurred, and several spaces became stranded or unused, leading to that Administration Office to modify the use of these environments.

Whereas maintenance services are indispensable and continuous in nature. In addition, there are several factors that influence on the preservation of the building, these factors ranging from the natural aging of the building by the deterioration by accidents, accompanied by growing dynamics of modernization and technological development, and Considering also the needs of users, it is necessary to hire a specialized company for providing building maintenance services, ensuring availability and performance of building systems through repairs, maintenance services, reviews of operation with constant replacement of defective components, among others, in order to protect themselves from interruptions not provided for in the activities of the representative office.
DEVELOPMENT

On the opportunity of the visit was that the building, presents a good state of repair, however it is essential to building maintenance services to minimize the effects of deterioration over the years, enabling a greater life.

Landslides, fires, falls of marquees and facades, leaks, infiltration, and so many other evils from the oversights with the buildings can be avoided with preventive measures, simple, long term, through a planning that begins with the inspection building, for the subsequent implementation of the maintenance plan, which ensures the good performance of the building, the safety and comfort of its 9 users. (IBAPE/SP – Brazilian Institute of Evaluations and Expertise of engineering of São Paulo, 2005).

Surveys were carried out of the situation, photographic records, analyses and measurements, in order to combine all the elements necessary for the preparation of the maintenance Project.

Currently the maintenance area exists so that there is no maintenance, or, the current maintenance work being ennobled and more and more teams should be qualified and prepared to avoid the breakage or failure and no longer to fix them, but so that a company reach success in the management of maintenance areas it is necessary that we perform a deep mindset and posture maintenance. (Arcuri, Cabral and Kardek, 2002).

Needs assessment

The present study was designed only to meet the physical condition of the building maintenance aiming at the well-being of users and servers who work and attend the scene.

Observing the items described in Art. 8,666/93 law 12:

1. Safety;
2. functionality and suitability for public interest,
3. economy in the implementation, maintenance and operation,
4. ease of implementation, maintenance and operation, without prejudice to the durability of the works or of the service,
5. adoption of technical standards,
6. environmental impact assessment.

Needs program was divided into three areas to systematize and understanding of the services and actions proposed, containing recommendations, solutions and actions required.
Part of Civil Construction

The building currently features good condition not requiring structural repairs, but if you do need the recurring maintenance, as a result of your use and wear caused in function of time and of the environmental features to which it is prepared.

It should be noted that the representative office is located in an area of high rainfall and rainfall, in that this subject caused by moisture infiltration on the roofs of buildings that originates from rains and strong winds, which can cause leaks and harming the stormwater system (gutters and pipes fall).

Superstructure:

The building presented no problems related to structure, however it is necessary to contemplate materials to correct problems that are the more usual in concrete works.

Recommendation: Reserve materials for structural issues fixes for small sizes, like cracks and beef, such as grout, hydrated lime, sand and cement.

Hidrossanitária Facilities:

During previous maintenance were exchanged the pipes, but the materials have great wear and easy possibility of being damaged.

Recommendation: Provide the materials to make the switch in case of damage, such as: the various pipes, gauges, fittings, accessories, cleaning materials, records of the upper reservoir and hygiene, artesian well.

Vitreous Chinaware and metal:

Were not exchanged the sanitary vitreous Chinaware and metal.

Recommendation: Future materials for replacement in case of damage, such as: sink faucet, sink, toilet, siphons, valves and hitch.

Equipment:

Because the inspection if necessary to access roof and places of work at height.

Recommendation: provide scaffolding and equipment budget of PPE, with the due obedience rules and
laws.

**Paintings:**

The building needs to be completely painted and is not in good condition on the painting, due to lack of maintenance.

Recommendation: make a rodizio areas with retouching of paintings to ensure the integrity and maintenance of paint throughout the year, reserving materials: paint, sealer, primer, acrylic, PVA mass mass, plaster, brushes and carving.

**Cover and roof:**

The coverage is in need of repair, because there was a heavy rain with winds.

Recommendation: because of the high rainfall of the locale, provide for: new tiles, Lumber, nails, repair in the gutters, Ridge and flange.

**Waterproofing:**

The wet areas and exposed to humidity are sealed.

Recommendations: due to the high rainfall of the locale, provide for: asphalt, waterproofing additive blanket, flexible polymer membrane and veda gutter and sealing mass.

The type of building planning, represented by the detailed forecast of the working methods to be deployed on building depends on the intended purpose, funding available and to be properly prepared. (Gomide, Grandson and Pujadas, 2006).

**Electrical Installations**

Preventive maintenance is necessary for the monitoring load balancing, retighten, checking the resistance of grounding mesh, installation of split type devices, verifying the quality of the energy provided by the concessionaire and other activities that contribute to the perfect operation of the electronics and appliance. According to Fire Department statistics (2007), in the State of São paulo the electrical installations are the second leading cause of fires.

Are the conditions found lack of maintenance of the basic conditions of security and preservation, as well
as the maintenance applicant, in addition to the risk of fire in the building.

All the electric cabling, manholes, light fixtures and food are scrapped.

During the technical visit, the operational Chief reported that the local electricity company Eletrobras Rondônia inspected to the mains of Suframa, because of constant power outages, and after overhaul, announced that the Phase C, I'd be overloading, causing the electrical circuits where clock is connected electrical and electronic equipment of Suframa.

After the information, conducted a survey on the network – electrical, and there have been some anomalies found:

the) it was found that due to the time of use and poor conditions of the facilities, there is a need for a general overhaul in the layout of distribution frames, light points and Sockets, cabling and wiring, terminals, boxes, conduit, and lamps lamps, once the preventive and corrective maintenance wouldn't immediately;
(b)) it was found that the entire air force 75 KVA substation, comprising the General switchboard, wiring, circuit breakers and that power the circuits of SUFRAMA, are obsolete and worn, due at the time of installation.
c) existing distribution frames do not have reserve circuit, making it impossible for future installations, if the representative office needs.
d) is essential to the sizing of electrical charge installed and demand, to a new reform project in the electrical installation;

Thus, the conditions are found, the fact of the old installations being increasingly required, because the increase in staff and equipment, being necessary extensions of existing facilities to promote the care of equipment, namely, lack of basic conditions of security and preservation of facilities, noting the lack of monitoring of these implementations at grid were not authorized by COADI.

The materials (electrical wiring, circuit breakers damaged exceeded, oxidation of the busbars distribution frames, antique light fixtures (without protection), taken 2 p to 2 p + T outlets, switches, single, double, triple, creation of a network of ground, creating for radii at the highest point of the building, damaged conduit, and replacement of distribution frames contained in the substation construction of SUFRAMA) that were detected in accordance with the relevant rules and regulations in our country should be duly corrected.

**Electric energy input and grounding mesh Polyphasic.**
Carrying out measurements and periodic maintenance actions of the phases of the distribution of electrical energy input, requiring periodic monitoring regarding the measurement and verification of the electrical contacts, avoiding the heat and bad contacts, and thus minimizing the risk of fire and outbreaks in the installation.

**Lamps**

Realization of contracting company specializing in preventive and corrective maintenance, as well as the exchange of parts and equipment that can fail over use, giving preference LED bulbs.

**External lighting around the ground.**

The record in the services in preventive and corrective maintenance, to ensure the preservation of goods night security and heritage of the municipality, and the servers and staff allocated to the COREPVH/ro.

The solutions presented to these items will contribute to the deterioration not in higher degree of electrical and electronic equipment, safety and comfort of the servers, service providers, and for it be observed the precepts of NR 10—which handles security in Facilities and services in electricity.

**Part of refrigeration equipment**

Due to procedural delays, the appliances air conditioners are still in the process of hiring the company that will carry out the installation.

With this scenario, was provided for in the contract of maintenance installation of refrigeration equipment for preventive and corrective maintenance company specialized, respecting the balance of loads on the electric Board, as well as your maintenance during the time that is included in the maintenance agreement period term of reference.

Be included in the budget the usual materials to be used in repairs and preventive maintenance of the central air conditioning equipment.

**CONCLUSION**

The above descriptions, justifies the necessity of establishment of a preventive and corrective maintenance agreement in the representative office of SUFRAMA in Porto Velho/RO, aiming at the extension of the useful life of the property, heritage preservation, improvement in aesthetics the unit, providing better working conditions and greater security to employees and the public, taking into account
the minimum requirements contained in this program.

He adds that the periodicity and the definition of preventive and corrective maintenance must be part of the terms of reference. The attendances of maintenance of fire extinguishers must count on budget to provide the security needed for the proper functioning of the Division publishes.

As mentioned in the present study, were in compliance with the requirements of the technical norms of ABNT/NBR.

REFERENCES


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