

Secondary Electrical Maintenance Service

Scope of Work

Reviewed By: _____

Approved By: _____

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Background

The Integrated Service Provider's program will provide superior on-site equipment, service, technology, application expertise, process knowledge, monitoring techniques, effective service project management, overall process excellence and cost control in support of the OWNER's mission to be a world class manufacturer of automotive engines

Service Philosophy and Objectives

The Electrical Maintenance Integrated Service Provider will provide the OWNER Operations with State of the art equipment and off sight servicing thus contributing to the OWNER's immediate production support performance goals. This will allow FSSP support and the OWNER production personnel to operate worry free of material transportation concerns.

Pillars of the Program

- The Electrical Integrated Service Provider shall ensure all work is performed in accordance with all applicable Federal, State and Local building codes, mechanical codes, electrical codes and regulations applicable to this service and shall be responsible for all costs associated with any fees required to meet said codes and regulations.
- The Electrical Integrated Service Provider shall be responsible for all Permits and Inspections required by law and all associated costs.
- THE OWNER will, within six months, undergo an ISO audit with the goal of immediate certification. The Electrical Service Integrated Service Provider must prepare and initiate a quality system to support this goal.

Definitions

- *FSSP* – Refers to Facility System Service Provider.
- *Integrated Service Provider* shall be defined as the contract service provider awarded the contract to support the OWNER facility.
- THE OWNER, Company Hiring CRMS as Facility Manager
- *PSSP* – Production System Service Provider – Company providing production maintenance.

Scope

Work Scope consists of all labor to perform routine maintenance on all electrical Power systems excluding Fire Alarm Systems. Materials are not included.

Electrical Service and Distributions System

Low Voltage

Definition: Low Voltage is defined as 0 to 600 Volts.

Site Electrical

Electrical Distribution –

- Infrared Thermography will be taken on all 480 volt switchgear annually.
- Infrared Thermography will be taken on all 480 volt distribution buss annually.
- Infrared Thermography will be taken on all 480 volt distribution cables between the substation and the buss.
- Inspect and reset electrical breakers and change fuses if needed.
- Inspect and test run emergency generator systems.
- Record utility meter readings as required.
- Inspect dry transformers for overheating or unusual conditions.
- Maintenance Program for Electrical apparatus and all interior and exterior lighting maintenance work as described below. The ISP will provide all qualified labor, and equipment to perform any all work associated with this Maintenance Program. The ISPs' work shall include, but not be limited to, construction, repair, periodic maintenance, testing and modifications to the owner's facilities.

Survey:

In the first three (3) months of the contract, the vendor will survey all feed cables, splices, taps, power vaults, transformers, connections, bus plugs, incandescent, fluorescent, and HID lights to determine what is needed to bring systems to a level of maintainability consistent with good practice and Owner's Electrical Equipment Maintenance Manual (EMM-1) and the NFPA Standard 70B (Recommended Practice for Electrical Equipment Maintenance -1994 Edition). This survey shall include, but not be limited to:

1. Perform quantitative infra-red thermography of the primary cable connections, plant bus distribution system, and the power vault connections.
2. Visually inspect the substation transformers, circuit breakers and taps.
3. Visually inspect the HID fixtures which provide general lighting in the manufacturing areas of the plant.
4. Visually inspect the HID fixtures utilized to light the parking areas of the plant.

5. Inspect and quantify (type, size and number of elements) the fluorescent fixtures used to light office areas, cafeteria, laboratories, etc.

The information gathered during this survey/inspection shall be tabulated in a spread sheet and presented to the owner showing a priority rating and projected costs to repair defective or deficient items. The costs for this first years' survey and inspection should be bid as a fixed fee and the repairs will then be on a "time and material" basis. See bid form attached.

Repairs:

During this initial phase of the contract, the ISP shall perform all routine service and proceed to repair the deficiencies found during the survey at the owner's direction. It is expected that all of these deficiencies can be repaired /replaced during the first year of this contract. The ISP shall furnish the crew or crews necessary to complete repairs in the remainder of the first year.

The ISP shall designate a foreman for these workmen and he will then be the contact between the ISP and the Owner. These workmen will perform their duties between the hours of 6:30 AM and 11:30 PM, Monday through Friday as core working hours.

The ISP reserves the right to sub-contract any work deemed necessary with prior approval of the Owner.

Maintenance Program:

The second and third year of this contract shall be a professionally managed maintenance program here and after referred to as the Maintenance Program (MP). The MP will require the ISP to provide trained and qualified workmen for the purpose of completing all work requisite to this task, and will be the sole responsibility of the ISP.

During the years following the first, the ISP will perform all routine maintenance and inspections, and keep all necessary records providing the owner timely copies for his benefit.

All parts, components, and supplies will be provided by the owner through the owner's MRO program.

The ISP will perform any and all of the following types of work:

1. Power vault and buss maintenance (from the switch house thru the plant) per the Owners Electrical Power Equipment Maintenance Manual EMM-1 and NFPA 70B.

Note: This will include periodic testing/inspection and infra-red surveys.

2. Group relamping of incandescent, fluorescent and HID fixtures.
3. Replace/repair any and all defective lamp elements (including Ballasts, Breaker Panels, Lighting Contactors, Igniters, Emergency Re-strike, Refractors/Diffusers, Power Connectors, Lamp Sockets, Wiring, etc.) and/or power distribution components (up to and including the bus plug for lighting elements).

Note: Changing of Buss Plugs as related to machine maintenance will be a responsibility of the PSSP. This ISP Scope reserves the right to change the buss plugs in relation to facilities maintenance or major rearrangements.

The elements of work will be done on a routine and regular maintenance schedule which the ISP will establish. These services will be directed/scheduled on "a regular basis," by CMMS. Schedules will be based on NFPA 70B standards, the manufacturers' recommendations, equipment location and use, type, run time, and the ISP's own experience. THE OWNER is to be informed of the MP's progress through a written report issued monthly to the owner. This portion of the contract will be bid on a fixed annual basis. See bid form.

Operational problems or complaints of a routine nature (e.g. burnt out, dim, or flickering lights) will be corrected as soon as practically possible. These issues will be forwarded to the ISP by a Work Order initiated through the Datastream 7i system. Where these lighting issues have a direct effect on the quality of production and are duly noted they will be addressed within 24 hours.

The ISP will then be responsible to schedule, initiate, complete, monitor, and inform the owner concerning each item assigned. Work Orders will be conveyed to the ISP via phone and logged by the Dispatcher; alternatively the owner may log the Work Order directly into CMMS. This call will inform the ISP of the nature of the issue. (Priority, required completion date, the owner's contact for consultation if required, the initiator, and any and all pertinent information required to satisfactorily negate the problem or schedule this work. A job completion file will be maintained using CMMS showing items assigned and completion date for the owner's review.

Any construction work desired by the owner will be conveyed to the ISP via a Maintenance Work Request form (see sample-Appendix A) which will be serialized and will include a description of the work, date, completion date expected, priority (high, medium, low), drawing no.'s if applicable, owner's designated representative for consultation, and any and all pertinent information required to do the work or schedule same. The ISP will then be expected to respond with an estimated cost and timing plan within a reasonable amount of time based on the size of the project and the resources required. Once approved, the work should commence according to the timing plan provided. The work requests will be directed and scheduled by the ISP who shall create a

maintenance scheduling data base showing each item assigned, projected completion date, costs information and current status. THE OWNER is to be informed of the MP's progress through written monthly report separate construction job completion file will also be maintained for these items showing item assigned, and completion date for the owner's review. This portion of the contract will be bid on a time and material basis See _bid form.

General Requirements:

This Maintenance Program (MP) will require the ISP to provide trained and competent workmen for the purpose of completing all work assigned. The ISP will receive instruction from a designated representative(s) of the Owner and will then be responsible to schedule, initiate, complete, monitor and inform the owner concerning each item assigned.

Upon contract award, the ISP shall submit a written HAZCOM Program and Jobsite Safety and Health Program for approval. In addition, all workmen who will be used at this site will be required to attend a 1 day training/orientation session at this facility. This training will encompass the owners' procedures, rules and regulations, i.e. HAZCOM; lockout; confined space entry; welding and burning; fall hazard overview, usage; recovery and waste disposal; record keeping (and shipping procedures); and re-built equipment safety, etc...

D5020 Lighting and Branch Wiring

General interior lighting, night lights/emergency lights, exit lights and exterior lights will be changed for entire plant on a schedule to be provided to the owner based on the life of the lamps and in accordance with any recognized codes.

D5030 Communication and Security Systems

D5040 Special Electrical Systems

A – UPS

To be maintained in accordance with the manufacturer's recommendations and to meet recognized and applicable code requirements.

ISP reserves the right to use the OEM or other recognized experts in this field to perform service and maintenance.

B – Emergency Lighting

To be maintained in accordance with the manufacturer’s recommendations and to meet recognized and applicable code requirements.

ISP reserves the right to use the OEM or other recognized experts in this field to perform service and maintenance.

C – Emergency Power (Generator)

To be maintained in accordance with the manufacturer’s recommendations and to meet recognized and applicable code requirements.

ISP reserves the right to use the OEM or other recognized experts in this field to perform service and maintenance.

D – EMS

To be maintained in accordance with the manufacturer’s recommendations and to meet recognized and applicable code requirements.

ISP reserves the right to use the OEM or other recognized experts in this field to perform service and maintenance.

E - Fire Alarm

Maintenance in accordance with the manufacturer’s recommendations and to meet recognized and applicable code requirements is the responsibility of others as defined by the owner.

Factors Affecting the Truck Repair Organization

- Space

The OWNER shall provide the Integrated Service Provider with the necessary site on the OWNER’s premises agreed to by the parties from which Integrated Service Provider will conduct salt storage and large equipment storage. The Integrated Service Provider shall be responsible for maintaining proper housekeeping of the agreed upon Area.

Requirements

- Maintain a vehicle deterioration rate to measure and predict failure so that planned maintenance can be scheduled in advance.
- Provide 24 hour change out of all other non critical equipment.
- There shall be no equipment or supplies provided by the OWNER.
- Space for charging equipment and staging of production critical change out equipment will be provided by the OWNER.
- Equipment shall have installed all appropriate safety systems as identified by the safety department.

Reference Documents

Down Utility Report
Utility Interruption Process