

# **Arc Flash Risk Assessment**

SUBMITTED TO:

**TULARE REGIONAL MEDICAL CENTER** 

Date: January 27, 2021



December 7, 2021

Mr. Shawn Denovich **TULARE REGIONAL MEDICAL CENTER**869 North Cherry Street

Tulare, California 93274

USA

Re: Arc Flash Hazard Analysis

Dear Mr. Denovich,

Thank you for considering Allied Reliability Group's proposal to provide an Arc Flash Risk Assessment for your facility.

Allied's electrical and testing services are an integral part of Allied's reliability offering and are performed with proven processes and consistency across both commercial and industrial applications.

The following pages outline our methodology, pricing and terms for completing this work.

Respectfully,

Andrew Condon
Business Development Manager
Allied Reliability Inc
condona@alliedreliability.com
310-502-4543 (C)





## **SCOPE OF WORK**

- 1. Allied Reliability Group (ARG) will provide short circuit and arc flash studies based upon information collected at the site. ARG will direct and assist in collecting the system information needed to complete the studies. ARG will remove panel board, dead fronts and switchgear access panels.
- 2. Data gathered will include the following:
  - Nominal kVA and %Z impedance of distribution transformers
  - Cable and Busway conductor sizes and lengths
  - Breaker models with applicable trip settings
  - Fuse makes, models, and sizes
  - Nominal HP of motors
  - Make, model, serial number, and nameplate kW rating of generator sets
  - Modes of operation (utility paralleling, open transition transfers, etc.)
- 3. ARG will generate a composite one-line diagram of the facility's power distribution system. This diagram will identify the components considered in the study, and the ratings of each of the power devices (transformers, circuit breakers, fuses, relays, buses, and cables). All motor loads will be shown individually or as lumped horsepower, depending upon size, quantity, and function.
- 4. A short circuit analysis shall be performed which gives the momentary and interrupting duties on each fault bus shown on the one-line diagram. A computer simulation will be used to place a bolted three-phase fault at each of the selected locations and perform calculations of total fault current available, including contribution from each adjacent bus.
- 5. Allied Reliability Group will use the information collected and the results of the short circuit study to perform an incident energy analysis, which determines the proper PPE to be used within the arc flash boundary.
  - PPE selection is based upon NFPA 70-E 2018 Edition, Informative Annex H, Table H.3(b), or site specific PPE.



- 6. Upon completion of the studies, ARG will provide a comprehensive report detailing the following:
  - All field collected data
  - One-line diagram and system model
  - Calculated short circuit values
  - Bus evaluation report
  - Arc Flash incident energies and boundaries for each bus and panel modeled
  - Personal Protective Equipment Recommendations
- 7. ARG will provide and install water proof Arc Flash Hazard Labels for all modeled equipment. Each label will include the bus ID from the short circuit study, the calculated incident energy at the specified working distance, the arc flash protection boundary, and recommended protective clothing corresponding to the incident energy level.
- 8. Results of the Arc Flash Risk Assessment and Short Circuit Hazard Analysis are compiled in a binder for facility reference, and a digital copy of all report files will be provided as well. These files will include the PDF copies of the report and drawings. AutoCAD version of one-line arc flash model and the software backup file from the software used to conduct the study.

To facilitate collection of the necessary information, Allied Reliability Group requests the following:

- A facility escort familiar with the location of all electrical distribution equipment
- The most recent facility one-line diagram

To facilitate the timely completion of the arc flash risk assessment, the customer will assist ARG in obtaining transformer data from your utility provider.

All studies (short circuit, and incident energy analysis) are PERFORMED by a Professional Engineer, from inputting the data and creating the system model, to analyzing the different cases/conditions of operational modes, to interpreting the results and developing recommendations. Upon completion of the report and studies the overseeing Professional Engineer will provide a stamp for all drawings and studies.



## **Pricing**

Based on the information provided, we will perform the arc flash risk assessment for:

#### **Pricing Breakdown:**

Arc Flash Analysis - \$34,995.00

#### Optional Services

- Site specific Safety Plan \$8500
- NFPA70E Safety Training Online Webinar \$2600 Onsite \$5500

This proposal will remain valid for 90 days from date of proposal

All invoiced amounts are due and payable upon receipt of Allied Reliability Group's invoice. Terms are net 30 days. Allied Reliability Group will invoice as follows:

## **Billing Schedule**

• 100% upon issuance of final report

## **Terms and Conditions**

Additional to Allied Reliability Group's standard terms and conditions:

Any drawings, studies, and/or reports in electronic form, you agree to hold harmless and indemnify us from and against all claims, liabilities, losses, damages and costs, including, but not limited to, attorney's fees arising out of, or in any way connected with, the modification, misinterpretation, misuse or reuse by others of the information and data provided by us. The foregoing information applies, without limitation, to any use of the project documentation on other projects, for additions to this project, or for any charges to this project by others, exception only such use as may be authorized, in writing, by us. "Any taxes, tariffs or value added taxes are the responsibility of the buyer."

Accepted b	y:		
Sign:		Date:	
Name:			
Title:			



www.AlliedReli	ability.com		
Company:			
PO#:			

### **GENERAL CONDITIONS OF SERVICE**

#### 1. General

- (a) Unless otherwise agreed in writing or except where they are at variance with (i) the regulations governing services performed on behalf of governments, government bodies or any other public entity or (ii) the mandatory provisions of local law, all offers or services and all resulting contractual relationship(s) between any of the affiliated companies of Allied Reliability, Inc. or any of their agents and/or licensees (each a "Company") and Client (the "Contractual Relationship(s)") shall be governed by these general conditions of service (hereinafter the "General Conditions").
- (b) The Company may perform services for persons or entities (private, public or governmental) issuing instructions (hereinafter, the "Client").

#### 2. Provision of Services

- (a) The Company will provide services using reasonable care and skill and in accordance with Client's specific instructions as confirmed by the Company or, in the absence of such instructions:
  - (1) The terms of any standard order form or standard specification sheet of the Company; and/or
  - (2) Any relevant trade custom, usage or practice; and/or
  - (3) Such methods as the Company shall consider appropriate on technical, operational and/or financial grounds.
- (b) Information stated in Reports of Findings is derived from the results of inspection or testing procedures carried out in accordance with the instructions of Client, and/or our assessment of such results on the basis of any technical standards, trade custom or practice, or other circumstances which should in our professional opinion be taken into account.
- (c) Reports of Findings issued further to the testing of samples contain the Company's opinion on those samples only and do not express any opinion upon the lot from which the samples were drawn.
- (d) Reports of Findings issued by the Company will reflect the facts as measured & recorded by it at the time of its intervention only and within the limits of the instructions received or, in the absence of such instructions, within the limits of the alternative parameters applied as provided



for in clause 2 (a). The Company is under no obligation to refer to, or report upon, any facts or circumstances which are outside the specific instructions received or alternative parameters applied.

- (e) The Company may delegate the performance of all or part of the services to an agent or subcontractor or licensee and Client authorizes Company to disclose all information necessary for such performance to the representative or subcontractor or licensee.
- (f) Client acknowledges that the Company, by providing the services, neither takes the place of Client or any third party, nor releases them from any of their obligations, nor otherwise assumes, abridges, abrogates or undertakes to discharge any duty of Client to any third party or that of any third party to Client.
- (g) Any physical samples taken as part of this deliverable shall be retained for a maximum of 3 months or such other shorter time period as the nature of the sample permits and then returned to Client or otherwise disposed of at the Company's discretion after which time Company shall cease to have any responsibility for such samples. Storage of samples for more than 3 months shall incur a storage charge payable by Client. Client will be billed a handling and freight fee if samples are returned. Special disposal charges will be billed to Client if incurred.
- (h) Reports shall be retained for a maximum of 3 years; storage of reports for more than 3 years shall incur a storage charge payable by Client.

#### 4. Obligations of Client

The Client will:

- (a) Ensure that sufficient information (technical and administrational), instructions and documents are given in due time (and, in any event not later than 48 hours prior to the desired intervention) to enable the required services to be performed;
- (b) Procure all necessary access for the Company's representatives to the premises where the services are to be performed and take all necessary steps to eliminate or remedy any obstacles to, or interruptions in, the performance of the services;
- (c) Supply, if required, any special equipment and personnel necessary for the performance of the services;
- (d) Comply with the Company's requests to conduct interviews, meetings or discussions with the Client's Related Third Party employees and agents on any matters relating to the Services, within such deadlines as the Company shall establish;
- (e) Ensure that all necessary measures are taken for safety and security of working conditions, sites and installations during the performance of services and will not rely, in this respect, on the Company's advice whether required or not;



- (f) Inform Company in advance of any known hazards or dangers, actual or potential, associated with any order or samples or testing including, for example, presence or risk of radiation, toxic or noxious or explosive elements or materials, environmental pollution or poisons;
- (g) Fully exercise all its rights and discharge all its liabilities under any relevant sales or other contract with a third party and at law.
- (h) In order to allow Company to comply with the applicable health and safety legislation the Client shall provide Company with all available information regarding known or potential hazards likely to be encountered by Company personnel during their visits. Company shall take all reasonable steps ensure that whilst on the Client's premises, its personnel comply with all health and safety regulations of the Client, provided that the Client makes Company aware of the same.

#### 5. Fees and Payment

- (a) Fees not established between the Company and Client at the time the order is placed or a contract is negotiated shall be at the Company's standard rates and all applicable taxes shall be payable by Client.
- (b) "Per Diem": In lieu of actual costs, a "per diem" fee is paid for subsistence per full 24 hours underway.
- (c) "Transportation costs": unless otherwise agreed with Client, actual documented cost for a) airline or other public carrier at coach rate, b) car rental, c)taxi or bus, d) tolls and parking fees and/or e)private automobile at the actual cost.
- (d) "Lodging" -actual documented cost for lodging or a fixed allowance for lodging for each night spent in travel status in lieu of actual costs.
- (e) All invoices are payable not later than 30 days from the relevant invoice date or within such other period as may be established by the Company in the invoice (the "Due Date"). In case the client fails to pay at the stipulated due date, an interest will become due at a rate of 1.5% per month from the Due Date up to and including the date payment is actually received.
- (f) Client shall not be entitled to retain or defer payment of any sums due to the Company on account of any dispute, counter claim or set off which it may allege against the Company.
- (g) Additional fees shall be charged for (i) operations that are not included in the Contract and / or (ii) rush orders, cancellation or rescheduling of services or any partial or full repeats which will be payable at the Company's prevailing charging rates.
- (h) Copy of the Company's prevailing charging rates are available upon request from the Company.
- (i) If the Company is unable to perform all or part of the services for any cause whatsoever outside the Company's control including failure by Client to comply with any of its obligations provided for in clause 3 above the Company shall nevertheless be entitled to payment of:



- (1) The amount of all non-refundable expenses incurred by the Company, and
- (2) A proportion of the agreed fee equal to the proportion of the services actually carried out.

#### 6. Suspension or Termination of Services

Delays are defined as those changes requested with less than 30 days notice.

Delay at the customer's request will incur a delay fee of all unrecoverable travel/preparation costs (i.e. airline/hotel penalties, etc.) plus a percentage of our daily billable rates (or fixed labor fee) of all scheduled resources in accordance with the following schedule and conditions:

Percentage of scheduled fees to be paid:

•	1 week	notice	80%
•	2  week	notice	60%
•	3  week	notice	40%
•	4 week	notice	20%

Notes: Up to 30 days of services; or until the job can be rescheduled and/or resources repositioned on other work.

(b) Cancellation of Project with less than 60 days' notice

Cancellation at the customer's request with less than 60 days' notice for reason other than documented issues with Allied Reliability Group performance will incur a cancellation fee of all unrecoverable travel/preparation costs (i.e. airline/hotel penalties, etc.) plus 75% of our daily billable rates (or fixed labor fee) of all scheduled resources for the lesser of the following:

- The duration of the project; or Up to 60 days of services
- Until the resources can be repositioned on other work
- If a cancellation occurs after delays, penalties paid during the delay period will be credited toward the cancellation penalties
- (c) Unless otherwise agreed in writing, either Party may terminate the Contract by reason of serious default by the other party (the "Breaching party") in its obligations at any time by giving not less than thirty (30) days' notice in writing to the Breaching Party after the Breaching Party failed to fix the notified default within thirty 30 days from notification.

#### 7. Liability and Indemnification

- (a) Limitation of Liability:
- (1) The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity. Clients seeking a guarantee against loss or damage should obtain appropriate insurance.



- (2) Reports of Findings are issued on the basis of Information (written or verbal), documents and/or samples provided by, or on behalf of, Client and solely for the benefit of Client who is responsible for acting as it sees fit on the basis of such Reports of Findings. Neither the Company nor any of its officers, employees, agents or subcontractors shall be liable to Client nor any third party for any actions taken or not taken on the basis of such Reports of Findings nor for any incorrect results arising from unclear, erroneous, incomplete, misleading or false information provided to the Company.
- (3) The Company shall not be liable for any delayed, partial or total non-performance of the services arising directly or indirectly from any event outside the Company's control including failure by Client to comply with any of its obligations hereunder.
- (4) The Company shall have no liability for any indirect or consequential loss including without limitation loss of profits, loss of business, loss of opportunity, loss of goodwill and cost of product recall. It shall further have no liability for any loss, damage or expenses arising from the claims of any third party (including, without limitation, product liability claims) that may be incurred by the Client.
- (5) In the event of any claim, Client must give written notice to the Company within 30 days of discovery of the facts alleged to justify such claim and, in any case, the Company shall be discharged from all liability for all claims for loss, damage or expense unless suit is brought within one year from:
  - (i) the date of performance by the Company of the service which gives rise to the claim; or
  - (ii) the date when the service should have been completed in the event of any alleged nonperformance.
- (b) <u>Indemnification</u>: Client shall guarantee, hold harmless and indemnify the Company and its officers, employees, agents or subcontractors against all claims (actual or threatened) by any third party for loss, damage or expense of whatsoever nature including all legal expenses and related costs and howsoever arising relating to the performance, purported performance or non-performance, of any services.

#### 8. Miscellaneous

- (a) If any one or more provisions of these General Conditions are found to be illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.
- (b) During the course of providing the services and for a period of one year thereafter Client shall not directly or indirectly entice, encourage or make any offer to Company's employees to leave their employment with the Company.



(c) Use of the Company's corporate name or registered "marks" for advertising purposes is not permitted without the Company's prior written authorization.

#### 9. CONFIDENTIALITY

As used herein, "Confidential Information" shall include the Client Information and any information oral or written that a party may acquire from the other party pursuant to the Contract provided, however, that Confidential Information shall not include any information which (1) is or hereafter becomes generally known to the public; (2) was available to the receiving party on a non-confidential basis prior to the time of its disclosure by the disclosing party; (3) is disclosed by an independent third party with a right to make such disclosure. Unless required by law, neither party shall disclose the other's Confidential Information to any person or entity except as expressly provided for herein.

#### 10. OWNERSHIP AND USE OF DELIVERABLE

The ownership of the Deliverable provided to the Client shall be vested in the Client. Company has the right to make and retain copies of said Deliverable for the purposes of Company's own records subject to the provisions of Article 9 above.

#### 11. Governing Law, Jurisdiction and Dispute Resolution

Unless specifically agreed otherwise, all disputes arising out or in connection with contractual Relationship(s) hereunder shall be governed by US law.

#### 12. EQUAL OPPORTUNITY (EO) CLAUSE

This contractor and subcontractor shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

#### 13. Purchase orders should be submitted to the following address:

Allied Reliability 10344 Sam Houston Park Drive Suite 110 Houston, TX 77064