

8/13/2014

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Subject: Response to IBEW/NECA LMCC

NLCAA thanks the Commission for forwarding the comments and questions posed by NECA/IBEW regarding the NLCAA Application for Approval as a Lighting Control Acceptance Test Certification Provider. NLCAA does appreciate the importance of equipping the industry with qualified personnel and procedures to enable and accelerate the continued deployment of energy saving technology. NLCAA also recognizes the importance of the questions and comments raised by the IBEW/NECA California State Labor Management Cooperation Committee and believes the questions and issues raised are very relevant and should be asked of each ATTCP applicant.

The following is a detailed response to the questions/issues referenced above.

I. "NLCAA APPLICATION FAILS TO DEMOSTRATE THAT THE ORGANIZATION HAS THE EXPERIENCE, QUALIFICATION, AND REPUTATION TO ENSURE SUCCESS."

Response:

Before we formed NLCAA, the senior team recognized the need for additional qualified resources to achieve the goals of successful wide scale deployment of advanced lighting controls. In our view the deployment of advanced lighting controls has not taken off to the degree we need to meet state objectives and to preserve our environment. Now with new regulations in place and with continued advances in technology the need to train qualified test and acceptance personnel is even more important. NLCAA was formed to address this growing need. Our vision and common core value is of training the individual to be equipped and current in state of the art advanced lighting control solutions. We believe this training should be made available to all qualified individuals. The level of qualification has been clearly defined by the California Energy Commission which NLCAA adheres to regardless of union affiliation or lack thereof. Our experience



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and reputation of providing advanced lighting solutions makes us very qualified to support the success of the ATTCP program.

- NLCAA is a team of seasoned professionals with vast experience in designing, and implementing energy management systems. Our senior members have owned and operated energy management organizations while maintaining a long term working relationship with lighting control manufacturers in order to track advances in the industry. Our senior members have also supported and have been active participants in the CALCTP training efforts in California.
 - i. Jack Yapp Senior Vice President has over 45 years of control and automation systems and is a retired member from Local 11 IBEW. As owner of Quality Electrical Controls and Engineering (QECE), a NECA Member, Jack met and has known Mr. Jim Wilson since 1977. QECE designed and installed controls and automation systems for Honeywell Controls, Johnson Controls, Barber Coleman Controls, Powers Regulator, Beckman Instruments, Pacific Telephone and Telegraph, General Telephone, and Litton Industries. QECE not only designed the controls system but implemented installation of building automation systems control mechanical as well as lighting. Additionally, Jack developed a patent on an energy saving Chiller Optimizer in 1980. Jack has been attending energy saving courses given by Southern California Edison and San Diego Gas & Electric for the past 16+ years, has completed and received the certificate from the Edison Lighting Academy, taught the CALCTP 50 hour training course, CALCTP System course, and CALCTP-AT acceptance test certification course for both employer and technician. Jack has also provided the 32 hours of continuous education for general electrician classification on Title 24 Part 6 since 2005.
 - Mr. Rick Miller an experienced lighting control designer who helped to develop the CALCTP program routinely reviews the NLCAA program to ensure it covers not only the requirements, but the application of the test procedure as well.
 Rick has taught the CALCTP 50 hour class as well as the CALCTP System Class.
 - iii. Rick Des Lauriers is President of R & R Controls, Inc., a local controls contracting company that he started in San Diego 20 years ago. Rick has over 35 years of experience in designing and installing building automation, energy management systems and lighting control systems all over Southern California. He served as chair for the ASHRAE Distinguished Lecturer program and is a past chapter president for the local San Diego chapter of ASHRAE. Rick is also a CALCTP certified employer.
 - Rob Pieroth is President of Positive Energy a commercial lighting contractor. Rob has 26 years in the energy efficiency field and started his business in Los Angeles 22 years ago. Positive Energy has numerous advanced lighting control systems



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installations throughout California. A partial list of customers include AT&T, Cal State Dominguez Hills University, Eli Lilly, Hewlett Packard, Intel, Linkedin, Merck, Toyota, and the University of California Santa Barbara. Rob is also a CALCTP employer.

- v. Bernardo Torres, Owner of Advance Lighting and Electric, a CALCTP employer and Acceptance Test Technician, Wyotech Electrical Instructor, Certified Electrician, Graduated from Bosco Tech with an emphasis in electronics and computers has been installing and repairing EMS and Lightings control panels for over 7 years
- vi. Temistocles Caal is president of Caal Electrical Contractors, Inc. Electrical Contractor, Certified General Electrician, Certified Lighting Consultant, LEED AP BD+C, Certified CALCTP Acceptance Test Technician. Temistocles has firsthand experience and strong knowledge in managing, performing, and overseeing comprehensive energy efficiency audits, lighting, lighting control & building control retrofits and energy efficient lighting & electrical upgrade solutions for residential, commercial and industrial projects.
- vii. Benjamin Torres software designer, under direction of the senior team, has helped develop software applications to assist the performance of acceptance test technician. The NLCAA application software is a state of the art package that ensures all required testing is performed and documented in a concise and precise format that is targeted at maximizing efficiency while minimizing ambiguities inherent in manual methods.
- NLCAA does have the ability run a quality and reliable acceptance test certification
 program. The subject matter covered in our training has been developed and reviewed
 by people well versed in advanced lighting controls many of whom have spent years
 training CALCTP students. Our tests and final examinations incorporate the
 requirements of the Energy Standards for lighting control acceptance test technicians in
 order to ensure the consistent and proper installation of lighting controls. Our training
 has been vetted by organizations that are focused on both advanced lighting
 technologies and the training of resources to ensure the success of installed systems
 and the conservation of energy.

Please see the following attachments

- a. Letter from Leviton a lighting control manufacturer
- b. Los Angeles Unified School District



II. "SUBSTANDARD PREQUAIFICATION REQUIREMENTS"

- a. "NLCAA Fails to Ensure Applicants Will Have Three years of Verifiable Professional Experience and Expertise in Lighting Controls"
- b. "Application Improperly Expands the List of Qualified Professionals to Professions with No Connection to Lighting Control Systems"

RESPONSE:

- NLCAA does ensure that the applicant has at least 3 years of verifiable professional experience and expertise in lighting controls and electrical systems. NLCAA reviews all applications to substantiate the professional experience and expertise in lighting controls prescribed by 10-103-A, subd.(c)(3) (B)(iii). Participation in the technician certification program shall be limited to persons who have at least three years of verifiable professional experience.
- NLCAA supports prequalification of the highest standards when reviewing background on lighting control experience. Our online application requires candidates to provide support of their work experience.
- NLCAA did not unilaterally expand the list of qualified professionals. This has been clarified on our web site online application. Note: NLCAA feels strongly that returning veterans with relevant experience would be excellent ATTP candidates as long as they meet the requirements prescribed by 10-103-A, subd.(c)(3) (B)(iii).
- Regarding experience in "Indoor Lighting" and "Outdoor Lighting", these examples as in all other reference to lighting experience was in the context of the lighting control aspect of that work. This has been clarified on our website application.
- NLCAA training is not only for Nonresidential Lighting Technicians, but for general electricians and qualified applicants seeking knowledge on lighting systems, lighting controls, and Title 24 Part 6 Energy Standards. NLCAA has a State approved curricula for Non-residential Lighting Technicians. The curricula covers all the items on 10-103-A, subd.(c)(3) (B)(i). NLCAA took the CEC's 10-103-A, subd.(c)(3) (B)(i) and adopted this to the curricula, and also included NFPA 70E.
- NLCAA does not provide apprenticeship training. NLCAA provides a State recognized electrical training program for Nonresidential Lighting Technicians, and education for Nonresidential Lighting Technicians. NLCAA expects all graduates to eventually acquire sufficient field experience that may lead to future qualification to the Acceptance Test Technician training program.
- NLCAA states that they abide by 10-103-A, subd.(c)(3) (B)(iii) qualification requirements, with <u>no</u> exceptions regardless of the training.
- NLCAA procedure for verification of work experience consists of reviewing all candidate applications prior to attending any certification classes. The verification along with



documentation will follow the Acceptance Test Technician in their respective folder and or electronic format.

III. INADEQUATE TESTING PROCEDURES.

Response:

- The NLCAA test procedure requires the instructor to oversee the student's final examination.
- NLCAA retains student s final examination in the Acceptance Test Technician's folder, and or server database.
- NLCAA continually reviews exam questions and responses to ensure the students understanding of the subject matter.
- NLCAA takes final exams very seriously and has zero tolerance for cheating.
- IV. INADEQUATE QUALITY ASSURANCE REQUIREMENT.

Response:

- NLCAA Acceptance Test Software. The NLCAA software application is designed so that the acceptance test technician enters all required acceptance data directly into the application's database. The software will generate all acceptance test forms and perform the required calculations for automatic daylighting and demand response. The resulting forms are consistent and eliminate mathematical errors. NLCAA has access to the forms, but cannot change them. Only the acceptance test technician has permission to complete and or update the forms. Once the Certificate of Acceptance is signed using a stylus the forms can no longer be modified. NLCAA will give access to the California Energy Commission and or Building Officials upon their request. NLCAA will keep all acceptance test records for a period of at least three years. Record retention beyond three years will be by request.
- After the first acceptance tests both employer and acceptance test technician must complete a review of their project and are required to submit their review to NLCAA within 90 days of completion. If NLCAA does not receive the review within 90 days NLCAA will schedule a field inspection per audit procedures. If the employer has not responded to the request for their review, NLCAA will file a formal complaint and will not authorize further access to the acceptance test software. NLCAA will post on their website that the employer and or acceptance test technician will be taken off the active list until NLCAA receives the project review forms and the formal process begins.
- NLCAA issues each contractor an authorization number to gain access to our acceptance test software. NLCAA maintains records of all acceptance testing in the NLCAA database. NLCAA will



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conduct random field reviews. The NLCAA software will reduce desk audits fees, and focus more on the random field inspection. Having the ability to quickly review any ongoing acceptance tests increases the quality assurance level.

- Another advantage of the acceptance test software is the inherent capability of remote support to AATCPs in the field. This will enable NLCAA to provide project technical assistance providing for increased quality assurance.
- NLCAA invested much time and effort in reviewing the 2013 Nonresidential Compliance Manual, Building Energy Efficiency Standards, and Nonresidential Appendices to come up with an acceptance test system that makes for a more streamlined system thereby enhancing quality assurance while accelerating the implementation of the Energy Standard goals.

"CALCTP is concerned that the Commission is proposing to approve an ATTCP with much lower quality assurance requirements than set forth in CALCTP's application. Quality assurance audits represent a significant expense to contractors. Accordingly, if one ATTCP offers a significantly weaker and cheaper quality assurance program, this will put the ATTCP with the stronger but more expensive program at a competitive disadvantage"

Response:

As stated earlier NLCAA approached the whole acceptance test need with an eye to ensuring complete, reliable, and efficient acceptance testing by qualified personnel. One area that has hampered the process has been the manual paper audit process. In recognition of this NLCAA went to great lengths to incorporate all of the required standards in our acceptance test software along with safeguards for erroneous and incomplete results. We believe this to be a significant improvement that makes for a more efficient and stronger acceptance test process.

IV B. "Failure to Describe What Further Action Will be Taken When A Failed Paper or On-site Audit Occurs"

Response:

- The NLCAA acceptance test procedure is not based on paper forms. Our procedure calls for test result recording via keypad software entries. Our acceptance test software application has designed safeguards to prevent incomplete entries and also prevents the technician from completing the audit if any failures occur. The acceptance test technician cannot sign the Certificate of Acceptance if forms are not completed. The NLCAA database records all acceptance test results.
- Failure of a field inspection "Onsite Audit" will generate a formal complaint and may proceed to a 10-103-A(c) E Certification Revocation Procedure.



 NLCAA agrees with "LMCC" that all ATTCP must meet a high standard in support of the 2013 Energy Standards. NLCAA suggests that all ATTCP must follow 10-103-A requirements by addressing each and every item on their application in a concise manner with minimal verbiage so that the application can be easily verified regarding all sections and articles pertaining to ATTCP's application.

Summary

NLCAA again thanks the Commission for the opportunity to clarify our position and to provide feedback to the questions raised by NECA/IBEW. NLCAA looks forward to further dialogue regarding our application and qualification as an ATTCP. We look forward to exploring any suggestions the Commission may have regarding that process.

Sincerely,

Jack Yapp Sr. VP NLCAA



November 18, 2013

California Energy Commission;

<Pedro.Gomez@energy.ca.gov>, <Tav.Commins@energy.ca.gov>, <chris.olvera@energy.ca.gov>

RE: Support for NLCAA for Recognition as an ATTCP

Dear California Energy Commission:

We had become aware of Mr. Jack Yapp and the National Lighting Contractors Association of America (NLCAA) through numerous industry contacts here in California. It seemed like everywhere we turned we met someone else telling us about Mr. Yapp and the wonderful work he was doing in supporting the advancement and improvement of technicians in our market. We also became aware of his blog based upon Title 24 Commissioning Lighting Controls that he had started last year to provide additional support to the lighting control industry. http://www.title24lightingcontrols.com/

For this reason we set-up a meeting with Mr. Yapp to determine how we might use some of his classes to assist in the training of our current and future technicians. While visiting his school, California Electrical Training, Inc., we found it to be well equipped and up to date with the latest advanced lighting control systems. We were also impressed by Mr. Yapp's drive to continue to provide an advanced level of training on all of the top manufacture's lighting control solutions . . . in fact, we have offered and are now assisting Mr. Yapp by providing two of our latest lighting control solutions for installation into his school. This will be in order to assist in the completion of their school's lighting controls in their rooms for the purpose of allowing their students to perform real world acceptance test training on the latest lighting control solutions.

Over the past year, we have had the opportunity to get to know Mr. Yapp and are impressed with his knowledge of the electrical construction industry, his grasp of the upcoming changes to the 2013 CA Title 24, and his ability to pass his knowledge to others. Furthermore, we have had the opportunity to review his proposed CLCATT training program and the accompanying lighting control acceptance testing documentation software and have found it to be very well organized and thorough.

We would recommend the CEC take the above observations into consideration while evaluating NLCAA in their efforts to become a certified Acceptance Test Technician Certification Provider (ATTCP)

Sincerely,

Chris V.J. White

Chris V.J. White LEED AP Leviton LES Southwestern Regional Sales Manager

Cc: Jack Yapp

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JOHN E. DEASY, Ph.D. SUPERINTENDENT OF SCHOOLS

MICHELLE KING SR. DEPUTY SUPERINTENDENT OF SCHOOL OPERATIONS

DONNA BRASHEAR EXECUTIVE DIRECTOR

Joseph Stark Administrator

July 24, 2014

Tav Commins Mechanical Engineer California Energy Commission

RE: Letter of Support

To Mr. Commins:

We have been working with Mr. Jack Yapp for nine years in the field of electrical training in California. Mr. Yapp has been an invaluable resource for us from assisting with site inspections at electrical trainee schools to informing us on new laws, codes or regulations in the electrical industry. We assisted Mr. Yapp and his school, National Lighting Contractors Association of America (NLCAA) as his Local Education Agency to gain state certification with the Electrician Certification Curriculum Committee (ECCC) for the non-residential lighting technician curriculum. Also, NLCAA was approved for statewide training in California by the ECCC. Furthermore, Mr. Yapp composes the non-residential lighting technician curriculum entirely by himself, which is now the standard curriculum for this field of work in California. It is our understanding that the Energy Commission staff has reviewed and validated all information received on NLCAA's Lighting Controls ATTCP application. The Energy Commission staff has determined that NLCAA's Lighting Controls ATTCP application meets the criteria and procedures required in Section 10-103-A(c) of the Standards. We support Mr. Yapp's efforts to advance the electrical industry and safety awareness and create a higher standard for work and training in California. Furthermore, addressing the need to have additional access to training and certification from more than one source will help implement the 2013 Energy Standards. Without question, we endorse NLCAA to become a Lighting Control Acceptance Test Technician Certified Provider to train and certify qualified individuals in this field of work.

If you have any questions please feel free to contact me.

Sincerely,

Bear R. Meur

Oscar R. Meier Apprenticeship & Electrical Trainee Advisor Los Angeles Unified School District <u>oscar.meier@lausd.net</u> (213) 241-3780

vjg

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November 14, 2013

California Energy Commission <Pedro.Gomez@energy.ca.gov>, <Tav.Commins@energy.ca.gov>, <chris.olvera@energy.ca.gov>

RE: Support for NLCAA for Recognition as a ATTCP

Dear Pedro, Tav and Chris,

I am the principal coauthor of the original California Advanced Lighting Control Training Program (CALCTP) technical lectures and hands-on labs, and I have taught this 50 hour course several times over the past five years.

Last year I submitted several comments on the proposed wording of Title 24 Part 6 Section 10-103-A and was pleased when 90% out of my 45 suggestions were incorporated in the final reading.

More recently, I successfully passed the initial train-the-trainer course for the Certificated Lighting Control Acceptance Test Technician (CLCATT). In this regard I would like to speak in support of Mr. Jack Yapp and the National Lighting Contractors Association of America (NLCAA) in their efforts to become a certified Acceptance Test Technician Certification Provider (ATTCP).

I have taught with Mr. Yapp several times at SCE and have been impressed with his knowledge of the electrical construction industry, his ability to pass his knowledge to others, and his enthusiasm when starting a new project. I have visited his school, California Electrical Training, Inc., and found it to be well equipped and up to date with the latest advanced lighting control systems. Over the past few months I have had the opportunity to review his proposed CLCATT training program and the accompanying lighting control acceptance testing documentation software.

I recommend the CEC recognize NLCAA as a certified Acceptance Test Technician Certification Provider.

Sincerely,

Richard n miller

Richard N Miller, PE, LC, LEED AP President

Cc: Jack Yapp