



Frequently Asked Questions

ACP (American Clean Power) Wind Technician Entry-Level Training Guidance as it relates to ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard

May 2023



Preface

This is an ACP Board subcommittee initiative focused on closing a gap that exists in critical safety and technical training space for entry level technicians. Development of baseline competency training guidelines will help to keep workers safe and create a valuable platform for industry-wide training and recruitment initiatives which will be critical to ensure sufficient qualified workers exist to fuel the forecasted, explosive clean energy growth. This guideline builds on the existing ANSI/ACP Wind Technician Entry Level Minimum Standard. It is essentially a “how-to” guide to implement a training program that adheres to the standard. This initiative can also serve as the basis for an ultimate ‘clearinghouse’ to match allocated workforce development and just transition funds (state, federal and project-level) to training institutions and employers.



Contents

Talking Points.....	4
The Why.....	4
The What.....	4
The How.....	5
The When.....	5
FAQs.....	6
1. What is the ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard?.....	6
2. Where can I find the ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard?....	6
3. What is the difference between the Standard and the Guideline documents?.....	6
4. How does this impact my training if my company outsources training?.....	6
5. How does this impact my training if my company manages our own training programs?.....	6
6. Do we have to go to GWO training to meet the standard?.....	7
7. What is the difference between certification and certificate of completion?.....	7
8. What is accreditation as it applies to training centers or training providers?.....	8
9. What is the difference between Certification and Qualification?.....	8
10. How does the ACP Micro-credentials align with this?.....	8
11. How does this relate to apprenticeship requirements or programs?.....	8
12. What is the definition of an Entry-Level Wind Technician?.....	8
13. Why the need for collaboration with Global Wind Organisation (GWO)?.....	9
14. How will I find out more?.....	10

Talking Points

The Why

People are the center of successful energy transformation. This will require many new workers. Additionally, the industry must prioritize ensuring new workers are trained and capable of working safely.

The industry agrees on the need for more workers and standardization of training. The ANSI (American National Standards Institute) ACP Entry Level Wind Technician Entry-Level Minimum Standard was developed over multiple years with a wide range of experienced industry professionals. This year ACP is working with the Global Wind Organisation (GWO) to deliver a usable guideline to help companies implement the standard with a training program that meets its requirements. The intent is to improve the overall quality and consistency of entry level workers coming out of training programs and to help alleviate the current burden on employers in performing basic safety and technical training for entry level technicians so they can focus on training on company specific policies, procedures, and equipment.

The focus of the standard and this accompanying guideline is both basic safety and technical knowledge and skills. In addition to a safe and capable workforce, once standardized training is established, it will increase the industry's profitability and performance. Safe and competent workers contribute to higher performance and availability of assets with a reduction in rework and safety incidents that impact the total cost of ownership of these renewable assets.

The What

This training guideline establishes the parameters for a training program that is consistent with the ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard. ACP collaborated with the Global Wind Organisation (GWO) and member companies to develop this guideline to adhere to the ACP standard.

This guideline is not mandatory, nor does it represent a certification program. However, companies that adopt it will help build the industry expectation around the Minimum requirements for safety and technical skills for entry level technicians.

The guideline does not remove employer responsibilities, it just helps to standardize what entry-level technicians are expected to know and demonstrate to become competent. The employer would still be required to evaluate the qualifications and competency of each employee.

The How

Training of the growing workforce is expected to be done using existing training infrastructure (individual companies, community colleges, technical, vocational schools, etc.). ACP also plans to consider opportunities to support and supplement the existing infrastructure. Companies that already have training programs or facilities can conduct a gap analysis to ensure they meet the ACP training standard and guideline. ACP anticipates many company training programs will meet the standard and this guideline. Demonstrating this will solidify and unite the industry.

The When

The ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard was published last year and is already available. Currently the ACP Wind Technician Entry-Level Guideline is being developed and announced at the CLEANPOWER Conference in May 2023 for a 60-day review and comment period, with final publication planned later this year.

Concurrently, there is the same need for standardization in the solar energy and battery energy storage industries. ACP will be developing the entry-level minimum standards for these in 2023.

ACP is also scoping out development of plans to accredit training entities as training to the ACP standard and guideline, as well as to potentially certify the competence of individuals who have gone through such training. Currently we are planning to complete the scoping process for accreditation, credentialing, testing, and certification by the end of 2023, with expected rollout and implementation in mid-2024.



FAQs

1. What is the ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard?

A competency standard to serve as the building block for curriculum for prospective or new wind technicians. It assists employers, workforce development and training professionals, academia, and others in understanding the minimum educational and training-related requirements for entry level Wind Energy Technicians. It will outline the minimum requirements for educational and training program's learning objectives, knowledge, and skills needed for an entry level wind energy technician position.

2. Where can I find the ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard?

Download from the ANSI website:

<https://webstore.ansi.org/standards/ansi/ansiacp50002022-2482946>

3. What is the difference between the Standard and the Guideline documents?

The Standard sets the expectation on what needs to be taught or learned, while the Guideline helps to establish a more detailed view on how to accomplish the requirements from a training perspective.

4. How does this impact my training if my company outsources training?

For many companies, outsourcing training is typically used to get technicians trained. The hope is that when training is outsourced, companies will look to training entities that train to the ACP standard and utilize the guidelines in doing so. If GWO training is preferred, the exciting news is that GWO has developed a pathway for adhering to the ANSI Wind Technician Entry-Level minimum standard as a part of this process.

For other training institutions, the training curriculum should be expected to have similar alignment with the Guideline to align with the consensus industry standard, ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard.

5. How does this impact my training if my company manages our own training programs?

Organizations that have developed programs and are already conducting training should have minimal impact. It is recommended a gap analysis be performed on the in-house training and the ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard and Guidelines. Any gaps identified can be considered to add to the organization's training program to align with the industry standard and guideline. Any organizations meeting the standard or going above the minimum standard would have no change to the training programs they have in place. However, companies with in-house training programs that align with the ACP standard and guidelines may also see a benefit in tailoring their in-house training to company-specific policies, procedures and equipment and instead relying on other training entities to do the basic safety and technical training covered in the ACP materials prior to the company-specific training.

6. Who is the Global Wind Organisation (GWO)?

GWO is a non-profit association founded and owned by its members – all are globally leading wind turbine manufacturers and owner/operators. GWO members strive for an injury-free work environment in the wind turbine industry, setting common international standards for safety and technical training.

GWO published the first version of the Basic Safety Training (BST) standard in 2012 in response to the demand for a recognizable standard in the wind turbine industry. This was followed by the Basic Technical Training (BTT) standard in 2017. GWO has since launched a range of other training standards with address the most common safety and technical training needs of the wind industry's largest employers.

7. Do we have to go to GWO training to meet the standard?

It is an option but is not required. Organizations can use GWO, other training providers, develop in-house training, or any combination of those that meet the minimum standard and guideline. Organizations or institutions with comparable training programs may use this guideline to establish their own third-party verification to seek recognition as meeting the industry consensus of the ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard. Organizations or institutions should be advised that recognition of this Standard will always be dependent on, but not limited to, the regulatory, contractual, or owner specified requirements for any given site, and cannot be guaranteed through the application of this guideline.

Should ACP establish an accreditation program for training entities, then presuming GWO's training standard is accredited as adhering to the ACP standard and guidelines, then GWO-certified trainers could also be accredited to train to the ACP standard and guidelines. But entities that are not currently GWO-certified may also be accredited as qualified to train to the ACP standard and guidelines.

8. What is the difference between certification and certificate of completion?

Certification is the action or process of providing someone or something with an official document attesting to a status or level of achievement. This would typically include some formal testing whether passing a written examination or in person practical validation by a certifying instructor.

Certificate of Completion is simply attending a course and gaining credit for participating. These are two particularly important distinctions and, in most cases, since there is no standardized testing to ensure knowledge and terminal objectives are met, many training certificates are certificates of completion. This is something to verify with your training providers.

9. What is accreditation as it applies to training centers or training providers?

Accreditation is the process of officially recognizing a training center or provider as having a particular status or being qualified to perform a particular activity via an established audit process (i.e., ISO or the International Standards Organization). GWO accredits training providers by ensuring they meet specific requirements per their training framework. ACP is in the process of determining the accreditation process for the ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard and Guidelines, to include future solar and energy storage standards.

10. What is the difference between Certification and Qualification?

As mentioned above, there is a specific difference between certification or certificate of completion and qualification. Qualification is determined by the employer, and thus the employer should have processes in place to validate the skills, knowledge, and competency to meet the requirements to qualify individuals for tasks, work scopes, or job roles.

11. How does the ACP Micro-credentials align with this?

Most training is incomplete without demonstrated proficiency or competency for qualification.

Per 29 CFR 1910.269(a)(2)(viii) The employer shall ensure that each employee has demonstrated proficiency in the work practices involved before that employee is considered as having completed the training required by paragraph (a)(2) of this section.

29 CFR 1910.9 (b)Training. Standards in this part requiring training on hazards and related matters, such as standards requiring that employees receive training or that the employer train employees, provide training to employees, or institute or implement a training program, impose a separate compliance duty with respect to each employee covered by the requirement. The employer must train each affected employee in the manner required by the standard, and each failure to train an employee may be considered a separate violation.

Micro-credentials are a tool and mechanism to ensure employers have the tools to validate competency and proficiency and would be managed by the employer during the qualification phase. ACP has published 30+ micro credentials and plans to add additional ones throughout the year here: <https://cleanpower.org/resources/micro-credentials/>.

12. How does this relate to apprenticeship requirements or programs?

Apprenticeship is a large consideration in terms of industry standards. This guideline could support the future development of an apprenticeship program for organizations or associations.

13. What is the definition of an Entry-Level Wind Technician?

A wind technician is a broad term that can be used to describe a worker that performs tasks on a wind turbine and system in the wind energy industry. Typically, the tasks and competencies would be the following (*actual scope and definition may vary by company*):

Perform:

- Climb towers >250ft multiple times/day while wearing 25+ lbs. of climbing gear
- Awareness of and the ability to follow all health and safety and operating procedures.
- Participate in daily job task planning activities as it relates to their safe performance of tasks.
- Write (some using computer) routine reports and correspondence. Maintain service logs and monitor turbine performance.
- Follow written procedures and equipment manuals.
- Collect turbine data for testing or research and analysis.
- Interact with stakeholders as directed by manager and ensure safety.
- Use and must be familiar with a variety of personal protective equipment (PPE) such as safety harnesses, clothing, glasses, helmets, and shoes.
- Hoisting and rigging.
- Interpreting weather impacts on safety and preparedness.
- Perform rescue operations in emergency situations.

May assist under the supervision of a Qualified Electrical Worker (QEW) in:

- Safe operation and performance of scheduled and unscheduled mechanical, electrical, and hydraulic maintenance activities for wind turbines.
- Replacement of major turbine components (e.g., generators & gearboxes).
- Identification of failures, faults, and problems, and implementation of corrective actions.
- Conducting acceptance and performance tests on systems and equipment following planned maintenance and outages.
- Electrical system operations, maintenance, and repair.
- Activities in tight or small, and near hazardous energy

14. Why the need for collaboration with Global Wind Organisation (GWO)?

Since GWO already has established Training Standards that are recognized in the wind industry, it made sense to start with their programs as a base and adjust, as needed, for U.S. regulatory and market considerations and needs. To ensure the needs of the industry were met, ACP led a process to understand the variances between the GWO Standards and the North American market. A detailed gap analysis was performed by a working group of individuals from OEM (Original Equipment Manufacturers), Owner/Operators, third-party operators, EPC, and training providers. Identifying the gaps and ensuring that the ACP Guideline would provide information to ensure the ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard. GWO agreed to review and help update some of their training frameworks to support the North American market.

15. How will I find out more?

ACP will host several webinars with stakeholder groups during the review period, with registration links to be shared in late May and early June.

Agenda for each call:

- Background of the initiative
- Introduction to the ANSI/ACP 5000-2-2022 Wind Technician Entry-Level Minimum Standard and ACP Wind Technician Entry-Level Training Guideline
- How to utilize the documentation
- Review period expectations
- Open Q&A period

The following are the dates/times for specific stakeholders: (all times are EST)

Thursday, June 29 th :	11am-12pm Owner / Operators /OEM
	4pm-5pm Training Providers / Institutions
Friday, June 30 th :	1pm-2pm Training Providers / Institutions
	4pm-5pm Owner/ Operators /OEM
Monday, July 10 th :	11am-12pm Training Providers / Institutions
	1pm-2pm Owner / Operators /OEM
Friday, July 14 th :	11am-12pm Training Providers / Institutions
	3pm-4pm Owner / Operators /OEM

If you have any questions, please email: workforcedev@cleanpower.org