

Tanco Engineering Response to TRT Concerns:

I. Geographic Area is listed as “petroleum refining & storage facilities located in the state of Washington”. Standards do not appear to contain provisions for application, selection, outreach, or RSI delivery in multiple locations.

Geographic Area will be revised to Skagit, Whatcom, and Pierce Counties.

Standards will be revised to state that Tanco will have no more than four (4) apprentices at any given time.

Tanco’s corporate office is located in Colorado, but it should be noted that Tanco has had a continuous, full-time, Washington-based workforce for at least the past 25 years. So, we will not be “starting from scratch” in Washington in terms of application, selection, and outreach. We are not a turnaround contractor performing work in Washington sporadically with primarily an out-of-state workforce.

IX. Standards identify “Sponsor Provided (lab/classroom)” as delivery method, with RSI plan identifying the Training Provider as Bruce Frederiksen. Bruce Frederiksen appears to be based in Colorado. How will classroom and lab training be provided?

At this point, Bruce Frederiksen is the only person listed by name as “training provider”, and he will oversee the RSI program. Tanco will utilize additional training providers (instructors) who have already been certified through the NCCER Instructor Certification Training Program. If needed, both Bruce Frederiksen and Chad Hockenbury of Tanco are qualified to certify additional instructors through the NCCER Instructor Certification Training Program. During the start-up phase of the apprenticeship program, Mr. Frederiksen has committed to travel to Washington as needed to provide oversight, training of instructors, and training of apprentices. Mr. Frederiksen has no other regularly scheduled duties for Tanco. Mr. Hockenbury will also be available to assist in this effort.

As for facilities, Tanco plans to rent classroom/lab facilities in Whatcom and Pierce Counties, or at a location such as Everett that is located along the I-5 corridor between Whatcom and Pierce Counties.

XI. All committee members appear to be located in Colorado. How will apprentice oversight and management be accomplished?

Two (2) of the four (4) committee members live in the state of Washington. Their addresses are listed as Tanco’s corporate address for the purpose of receiving mail. The other two (2) committee members will travel to Washington as needed to effectively oversee and manage the apprenticeship program.

XIII. Training Director appears to be located in Colorado. How will apprentice oversight and management be accomplished?

As an NCCER Primary Administrator and Training Sponsor Representative, there are requirements regarding the periodic auditing/evaluation (including required forms) of instructors, facilities, proctors etc. Tanco has committed to following these NCCER requirements.

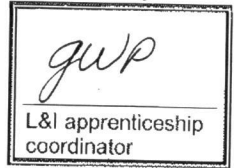
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Department of Labor & Industries
Apprenticeship Section
PO Box 44530
Olympia WA 98504-4530



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**REQUEST FOR APPROVAL OF
PROPOSED STANDARDS**



TO: Washington State Apprenticeship & Training Council

FROM Tanco Engineering Inc.

NAME OF PROGRAM STANDARDS _____

Check appropriate box:

☒ Committee

☐ Plant

☐ OJT

OCCUPATION(S):	HOURS:	SOC #:
Industrial Tank Boilermaker	6000	47-2011.00

Authorized Signatures:

Chair: <i>[Signature]</i>	Approved by: Washington State Apprenticeship & Training Council
Secretary: <i>[Signature]</i>	Secretary of Council
Date: <i>11/8/19</i>	Date:

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APPRENTICESHIP PROGRAM STANDARDS
adopted by

TANCO ENGINEERING INC.

(sponsor name)

Occupational Objective(s):

SOC#

Term [WAC 296-05-015]

INDUSTRIAL TANK BOILERMAKER

47-2011.00

6000 HOURS



APPROVED BY

Washington State Apprenticeship and Training Council

REGISTERED WITH

Apprenticeship Section of Fraud Prevention and Labor Standards

Washington State Department Labor and Industries

Post Office Box 44530

Olympia, Washington 98504-4530

APPROVAL:

Provisional Registration

Standards Last Amended

Permanent Registration

By: _____

Chair of Council

By: _____

Secretary of Council

TANCO ENGINEERING INC.

INTRODUCTION

This document is an apprenticeship program standard. Apprenticeship program standards govern how an apprenticeship works and have specific requirements. This document will explain the requirements.

The director of the Department of Labor and Industries (L&I) appoints the Washington State Apprenticeship and Training Council (WSATC) to regulate apprenticeship program standards. The director appoints and deputizes an assistant director to be known as the supervisor of apprenticeship who oversees administrative functions through the apprenticeship section at the department.

The WSATC is the sole regulatory body for apprenticeship standards in Washington. It approves, administers, and enforces apprenticeship standards, and recognizes apprentices when either registered with L&I's apprenticeship section, or under the terms and conditions of a reciprocal agreement. WSATC also must approve any changes to apprenticeship program standards.

Apprenticeship programs have sponsors. A sponsor operates an apprenticeship program and declares their purpose and policy herein to establish an organized system of registered apprenticeship education and training. The sponsor recognizes WSATC authority to regulate and will submit a revision request to the WSATC when making changes to an apprenticeship program standard.

Apprenticeships are governed by federal law (29 U.S.C 50), federal regulations (29 CFR Part 29 & 30), state law (49.04 RCW) and administrative rules (WAC 296-05). These standards conform to all of the above and are read together with federal and state laws and rules

Standards are changed with WSATC approval. Changes are binding on apprentices, sponsors, training agents, and anyone else working under an agreement governed by the standards. Sponsors may have to maintain additional information as supplemental to these standards. When a standard is changed, sponsors are required to notify apprentices and training agents. If changes in federal or state law make any part of these standards illegal, the remaining parts are still valid and remain in force. Only the part made illegal by changes in law is invalid. L&I and the WSATC may cooperate to make corrections to the standards if necessary to administer the standards.

Sections of these standards identified as bold “**insert text**” fields are specific to the individual program standards and may be modified by a sponsor submitting a revised standard for approval by the WSATC. All other sections of these standards are boilerplate and may only be modified by the WSATC. See WAC 296-05-003 for the definitions necessary for use with these standards.

Sponsor Introductory Statement (Required):

These Tanco Engineering, Inc. Apprenticeship Program apprenticeship standards have as their objective the training of an Industrial Tank Boilermaker skilled in all phases of the

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industry. The sponsor recognizes that in order to accomplish this, there must be well-developed on-the-job learning combined with related instruction. This recognition has resulted in the development of these standards of apprenticeship. They were developed in accordance with the basic standards recommended by the Washington State Apprenticeship & Training Council, as a basis from which the sponsor can work to establish an apprenticeship training program that meets the particular needs of the area.

I. GEOGRAPHIC AREA COVERED:

The sponsor must train inside the area covered by these standards. If the sponsor wants to train outside the area covered by these standards, the sponsor must enter a portability agreement with a sponsor outside the area, and provide evidence of such an agreement for compliance purposes. Portability agreements permit training agents to use apprentices outside the area covered by the standards. Portability agreements are governed by WAC 296-05-009.

The area covered by these Standards shall be petroleum refining facilities located in Pierce, Skagit, & Whatcom Counties.

II. MINIMUM QUALIFICATIONS:

Minimum qualifications must be clearly stated and applied in a nondiscriminatory manner [WAC 296-05-015(17)].

- Age: Applicants shall be at least 18 years of age.
- Education: A high school diploma, General Educational Development (GED) equivalency or other high school equivalency credential is required.
- Physical: Applicants must be physically capable of performing the work of this trade with or without reasonable accommodations, and without posing a direct threat to the health and safety of the individual or others.
- Testing: None
- Other: Applicants must be a current employee of Tanco Engineering Inc.

III. CONDUCT OF PROGRAM UNDER WASHINGTON EQUAL EMPLOYMENT OPPORTUNITY PLAN:

Sponsors with five (5) or more apprentices must adopt an Equal Employment Opportunity (EEO) Plan and Selection Procedure (chapter 296-05 WAC and 29 CFR Part 30).

The recruitment, selection, employment and training of apprentices during their apprenticeship shall be without discrimination because of race, sex (including pregnancy and gender identity), sexual orientation, color, religion, national origin, age, genetic information, disability or as otherwise specified by law. The sponsor shall take positive action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required by the rules of the Washington State Apprenticeship and Training Council and Title 29, Part 30 of the Code of Federal Regulations.

A. Selection Procedures:

Exempt due to fewer than 5 apprentices per WAC 296-05-405(1)(a)

B. Equal Employment Opportunity Plan:

Exempt due to fewer than 5 apprentices per WAC 296-05-405(1)(a)

C. Discrimination Complaints:

Any apprentice or applicant for apprenticeship who believes they have been discriminated against may file a complaint with the supervisor of apprenticeship (WAC 296-05-443).

IV. TERM OF APPRENTICESHIP:

The term of apprenticeship for an individual apprentice may be measured through the completion of the industry standard for on-the-job learning (at least two thousand hours) (time-based approach), the attainment of competency (competency-based approach), or a blend of the time-based and competency-based approaches (hybrid approach) [WAC 296-05-015].

The term of apprenticeship shall be six thousand (6000) hours of reasonably continuous on the job training including the apprenticeship initial probationary period.

V. INITIAL PROBATIONARY PERIOD:

An initial probationary period applies to all apprentices, unless the apprentice has transferred from another program. During an initial probationary period, an apprentice can be discharged without appeal rights. An initial probationary period is stated in hours or competency steps of employment. The initial probationary period is not reduced by advanced credit or standing. During an initial probationary period, apprentices receive full credit for hours and competency steps toward completion of their apprenticeship. Transferred apprentices are not subject to additional initial probationary periods [WAC 296-05-003].

The initial probationary period is [WAC 296-05-015(22)]:

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- A. the period following the apprentice's registration into the program. An initial probationary period must not be longer than twenty percent of the term of the entire apprenticeship, or longer than a year from the date the apprenticeship is registered. The WSATC can grant exemptions for longer initial probationary periods if required by law.
- B. the period in which the WSATC or the supervisor of apprenticeship may terminate an apprenticeship agreement at the written request by any affected party. The sponsor or the apprentice may terminate the agreement without a hearing or stated cause. An appeal process is not available to apprentices in their initial probationary period.
- C. The initial probationary period shall be the first one thousand (1000) hours of the apprenticeship employment.

VI. RATIO OF APPRENTICES TO JOURNEY LEVEL WORKERS

Supervision is the necessary education, assistance, and control provided by a journey-level employee on the same job site at least seventy-five percent of each working day, unless otherwise approved by the WSATC. Sponsors ensure apprentices are supervised by competent, qualified journey-level employees. Journey level-employees are responsible for the work apprentices perform, in order to promote the safety, health, and education of the apprentice.

- A. The journey-level employee must be of the same apprenticeable occupation as the apprentice they are supervising unless otherwise allowed by the Revised Code of Washington (RCW) or the Washington Administrative Code (WAC) and approved by the WSATC.
- B. The numeric ratio of apprentices to journey-level employees may not exceed one apprentice per journey-level worker [WAC 296-05-015(5)].
- C. Apprentices will work the same hours as journey-level workers, except when such hours may interfere with related/supplemental instruction.
- D. Any variance to the rules and/or policies stated in this section must be approved by the WSATC.
- E. The ratio must be described in a specific and clear manner, as to the application in terms of job site, work group, department or plant:

The ratio of apprentices to journey-level workers shall be one (1) apprentice to one (1) journey-level worker on each jobsite.

VII. APPRENTICE WAGES AND WAGE PROGRESSION:

- A. Apprentices must be paid at least Washington's minimum wage, unless a local ordinance or a collective bargaining agreement require a higher wage. Apprentices must be paid according to a progressively increasing wage scale. The wage scale for apprentices is

based on the specified journey-level wage for their occupation. Wage increases are based on hours worked or competencies attained. The sponsor determines wage increases. Sponsors must submit the journey-level wage at least annually or whenever changed to the department as an addendum to these standards. Journey-level wage reports may be submitted on a form provided by the department. Apprentices and others should contact the sponsor or the Department for the most recent Journey-level wage rate.

- B. Sponsors can grant advanced standing, and grant a wage increase, when apprentices demonstrate abilities and mastery of their occupation. When advanced standing is granted, the sponsor notifies the employer/training agent of the wage increase the apprenticeship program standard requires.

C. Wage Progression Schedules
Industrial Tank Boilermaker

Step	Hour Range or competency step	Percentage of journey-level wage rate*
1	0 – 1000 hours	60%
2	1001 – 2000 hours	65%
3	2001 – 3000 hours	70%
4	3001 – 4000 hours	75%
5	4001 – 5000 hours	80%
6	5001 – 6000 hours	90%

VIII. WORK PROCESSES:

The apprentice shall receive on the job instruction and work experience as is necessary to become a qualified journey-level worker versed in the theory and practice of the occupation covered by these standards. The following is a condensed schedule of work experience, which every apprentice shall follow as closely as conditions will permit. The following work process descriptions pertain to the occupation being defined.

- A. Industrial Tank Boilermaker Approximate Hours/Competency Level
1. Storage Tank Maintenance, Construction, Repair and Demolition1600
 2. Installation of Tank Structural Steel Members200
 3. Fabrication & Installation of Pipe Spools.....200
 4. Field Measuring and Jobsite Layout.....200

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5. Weld Preparation, Grinding, Gouging	400
6. Hand Torch & Track Torch Usage	300
7. Welding -	2100
a. Shielded Metal Arc Welding	
b. Flux-cored Arc Welding	
8. Hydrostatic Testing.....	100
9. Rigging & Signaling.....	200
10. Housekeeping – Tools, Materials, Equipment.....	200
11. Safety – Equipment Maintenance, Personal Protective Equipment, Safety Processes and Procedures.....	300
12. Unloading and Handling Material/Equipment.....	200

Total Hours: 6000

IX. RELATED/SUPPLEMENTAL INSTRUCTION:

The apprentice must attend related/supplemental instruction (RSI). Time spent in RSI shall not be considered as hours of work and the apprentice is not required to be paid.

RSI must be provided in safe and healthy conditions as required by the Washington Industrial Safety and Health Act and applicable federal and state regulations.

Hours spent in RSI are reported to L&I each quarter. Reports must show which hours are unpaid and supervised by a competent instructor versus all other hours (paid and/or unsupervised) for industrial insurance purposes.

For purposes of coverage under the Industrial Insurance Act, the WSATC is an employer and the apprentice is an employee when an unpaid, supervised apprentice is injured while under the direction of a competent instructor and participating in RSI activities.

If apprentices do not attend required RSI, they may be subject to disciplinary action by the sponsor.

A. The methods of related/supplemental training must be indicated below (check those that apply):

() Supervised field trips

- ☐ Sponsor approved training seminars (specify)
- ☒ Sponsor approved online or distance learning courses (specify) NCCER Connect
- ☐ State Community/Technical college
- ☐ Private Technical/Vocational college
- ☒ Sponsor Provided (lab/classroom)
- ☐ Other (specify):

B. **(144)** Minimum RSI hours per year defined per the following [see WAC 296-05-015(6)]:

- ☐ Twelve-month period from date of registration.*
- ☐ Defined twelve-month school year: (insert month) through (insert month).
- ☒ Two-thousand hours of on the job training.

**If no selection is indicated above, the WSATC will define RSI hours per twelve-month period from date of registration.*

C. Additional Information:

1. Apprentices will be responsible for completing the prescribed curriculum within the designated period. All courses need to be completed with a 75% or better.
2. At the end of each quarter, any Apprentices who fail to complete the required courses with passing scores must arrange within one (1) week of the end of the quarter to meet with the Training Director.
3. The Apprentice and the Training Director will work together to establish a plan for making up incomplete courses.

X. ADMINISTRATIVE/DISCIPLINARY PROCEDURES:

A. Administrative Procedures:

The sponsor may include in this section a summary and explanation of administrative actions performed at the request or on the behalf of the apprentice. Such actions may include but are not limited to:

1. Voluntary Suspension: A temporary interruption in progress of an individual's apprenticeship agreement at the request of the apprentice and granted by the sponsor. The program sponsor shall review apprentices in suspended status at least once each year to determine if the suspension is still appropriate.

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2. Advanced Standing or Credit: The sponsor may provide for advanced standing or credit for demonstrated competency, acquired experience, training or education in or related to the occupation. All sponsors need to ensure a fair and equitable process is applied to all apprentices seeking advanced standing or credit per WAC 296-05-015(11).

3. Sponsor Procedures:

- a. A daily record of hours worked in each category of on-the-job training will be maintained by each Apprentice. Apprentices will review their properly completed and signed work progress reports weekly with their Journey Level Trainer. Apprentices will submit reports monthly to the Training Director. The report will be submitted on or before the 10th of the following month.
- b. The Apprentice's Journey Level Trainer will sign off the Apprentice's record of hours worked in each category every week.
- c. The Apprentice will apply oneself both on the job and in related training programs and continually strive to become a skilled worker.
- d. The classroom policies and procedures outlined in 3(f) thru 3(i) below shall be adhered to at all times by the Apprentice.
- e. The Apprentice must read, understand, and abide by the provisions of these standards and Tanco Engineering Inc. Policies and Procedures.
- f. Apprentices must be in the classroom with the required materials and ready for class by the scheduled time of class.
- g. The responsibility rests solely with the Apprentice to complete all lessons and topics missed due to absenteeism.
- h. Any Apprentice who fails to return to class following a break or who decides to leave early of their own volition, shall be given no credit for that class and shall be marked as absent for the entire class.
- i. Any test missed due to absence of the Apprentice shall be made up at the convenience of the Training Director.
- j. Overtime hours worked shall be recorded as actual hours worked.

B. Disciplinary Procedures

- 1. The obligations of the sponsor when taking disciplinary action are as follows:

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- a. The sponsor shall be responsible for enacting reasonable policies and procedures and applying them consistently. The sponsor will inform all apprentices of their rights and responsibilities per these standards.
 - b. The sponsor shall notify the apprentice of intent to take disciplinary action and reasons therefore 20 calendar days prior to taking such action. The reason(s) supporting the sponsor's proposed action(s) must be sent in writing to the apprentice.
 - c. The sponsor must clearly identify the potential outcomes of disciplinary action, which may include but are not limited to discipline, suspension or cancellation of the apprenticeship agreement.
 - d. The decision/action of the sponsor will become effective immediately.
2. The sponsor may include in this section requirements and expectations of the apprentices and an explanation of disciplinary actions imposed for noncompliance. The sponsor has the following disciplinary procedures to adopt:
- a. Disciplinary Probation: A time assessed when the apprentice's progress is not satisfactory. During this time the sponsor may withhold periodic wage advancements, suspend or cancel the apprenticeship agreement, or take further disciplinary action. A disciplinary probation may only be assessed after the initial probation is complete.
 - b. Disciplinary Suspension: A temporary interruption in the progress of an individual's apprenticeship agreement. Conditions will include not being allowed to participate in On-the-Job Training (OJT), go to Related Supplemental Instruction (RSI) classes or take part in any activity related to the Apprenticeship Program until such time as the sponsor takes further action. The program sponsor shall review apprentices in such status at least once each year.
 - c. Cancellation: Refers to the termination of an apprenticeship agreement at the request of the apprentice, supervisor, or sponsor. [WAC 296-05-003].
3. Sponsor Disciplinary Procedures:
- a. **Monthly work records not turned in by the 10th day of the following month may result in the next scheduled rerate being held for thirty (30) days for each offense. Three (3) consecutive offenses may constitute action by the Tanco Engineering Inc. Apprenticeship Committee. Disciplinary action may include, Disciplinary Probation, Suspension, or Cancellation of the Apprenticeship Agreement.**
 - b. **Failure to attend RSI as scheduled may be cause for the apprentice to appear before the Committee and explain why they did not attend or complete all**

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courses with a required passing score. The Committee will take appropriate disciplinary action up to and including suspension or cancelation of the apprenticeship agreement after due notice to the apprentice.

- c. Apprentices will comply with all Tanco Engineering Inc. Policies and Procedures. Termination of employment with the Company for any reason will result in the cancellation of the Apprenticeship Agreement.
- d. Any Apprentice being disciplined will be subject to the disciplinary procedures as set forth in the sections C & D. below.
- e. The Apprentice may be required to appear before the Tanco Engineering Inc. Apprenticeship Committee and provide an explanation as to why they did not complete all courses for that quarter with passing scores. Disciplinary action may include, disciplinary probation, suspension, or cancellation of the Apprenticeship Agreement.

C. Apprentice Complaint Procedures:

- 1. The apprentice must complete his/her initial probationary period in order to be eligible to file a complaint (WAC 296-05-105).
- 2. Complaints involving matters covered by a collective bargaining agreement are not subject to the complaint procedures in this section.
- 3. Complaints regarding non-disciplinary matters must be filed with the program sponsor within 30 calendar days from the date of the last occurrence. Complaints must be in writing.
- 4. If the apprentice disagrees with the resolution of the complaint or wishes to contest the outcome of a disciplinary action by the program sponsor, the apprentice must file a written request for reconsideration with the program sponsor within 30 calendar days from the date the apprentice received written notice of action by the program sponsor.
- 5. The program sponsor must reply, in writing, to the request for reconsideration within 30 calendar days from the date the program sponsor receives the request. The program sponsor must send a copy of the written reply to the apprentice within the 30 calendar days.
- 6. If the apprentice disagrees with the program sponsor's decision, the apprentice may file an appeal with the Apprenticeship Program, (WAC 296-05-105). If the apprentice does not timely file an appeal, the decision of the program sponsor is final after 30 calendar days from the date the program sponsor mails the decision to the apprentice. See section "D" below.

D. Apprentice Complaint Review/Appeals Procedures:

1. If the apprentice disagrees with the program sponsor's decision, the apprentice must submit a written appeal to L&I's apprenticeship section within 30 calendar days from the date the decision is mailed by the program sponsor. Appeals must describe the subject matter in detail and include a copy of the program sponsor's decision.
2. The L&I apprenticeship section will complete its investigation within 30 business days from the date the appeal is received and attempt to resolve the matter.
3. If the Apprenticeship section is unable to resolve the matter within 30 business days, the Apprenticeship section issues a written decision resolving the appeal.
4. If the apprentice or sponsor is dissatisfied with L&I's decision, either party may request the WSATC review the decision. Requests for review to the WSATC must be in writing. Requests for review must be filed within 30 calendar days from the date the decision is mailed to the parties.
5. The WSATC will conduct an informal hearing to consider the request for review.
6. The WSATC will issue a written decision resolving the request for review. All parties will receive a copy of the WSATC's written decision.

XI. SPONSOR – RESPONSIBILITIES AND GOVERNING STRUCTURE

The following is an overview of the requirements associated with administering an apprenticeship program. These provisions are to be used with the corresponding RCW and/or WAC. The sponsor is the policymaking and administrative body responsible for the operation and success of this apprenticeship program. The sponsor may assign an administrator or a committee to be responsible for day-to-day operations of the apprenticeship program. Administrators and/or committee members must be knowledgeable in the process of apprenticeship and/or the application of chapter 49.04 RCW and chapter 296-05 WAC and these standards. If applicable, sponsors must develop procedures for:

A. Committee Operations (WAC 296-05-009): (Not applicable for Plant Programs)

Apprenticeship committees must be composed of an equal number of management and non-management representatives from a minimum of four to a maximum of twelve members. Committees must convene meetings at least three times per year attended by a quorum of committee members as defined in these approved standards.

B. Program Operations

The sponsor will record and maintain records pertaining to the administration of the apprenticeship program and make them available to the WSATC or Department upon request. Records required by WAC 296-05-100 will be maintained for five (5) years; all other records will be maintained for three (3) years. Apprenticeship sponsors will submit required forms/reports to the Department of Labor and Industries through one of the two prescribed methods below:

Sponsors shall submit required forms/reports through assigned state apprenticeship consultant.

Or;

Sponsors shall submit required forms/reports through the Apprentice Registration and Tracking System (ARTS), accessed through Secure Access Washington (SAW).

Paper forms as well as ARTS external access forms are available from the sponsor's assigned apprenticeship consultant or online at:

<http://www.lni.wa.gov/TradesLicensing/Apprenticeship/FormPub/default.asp>.

1. The following is a listing of forms/reports for the administration of apprenticeship programs and the time-frames in which they must be submitted:
 - a. Apprenticeship Agreements – within first 30 days of employment
 - b. Authorization of Signature forms - as necessary
 - c. Approved Training Agent Agreements– within 30 days of sponsor action
 - d. Minutes of Apprenticeship Committee Meetings – within 30 days of sponsor approval (not required for Plant program)
 - e. Request for Change of Status - Apprenticeship/Training Agreement and Training Agents forms – within 30 days of action by sponsor.
 - f. Journey Level Wage Rate – annually, or whenever changed as an addendum to section VII. Apprentice Wages and Wage Progression.
 - g. Related Supplemental Instruction (RSI) Hours Reports (Quarterly):
 - 1st quarter: January through March, due by April 10
 - 2nd quarter: April through June, due by July 10
 - 3rd quarter: July through September, due by October 10
 - 4th quarter: October through December, due by January 10
 - h. On-the-Job Work Hours Reports (bi-annual)
 - 1st half: January through June, by July 30
 - 2nd half: July through December, by January 31
2. The program sponsor will adopt, as necessary, local program rules or policies to administer the apprenticeship program in compliance with these standards. Requests for revision to these standards of apprenticeship must be submitted 45 calendar days prior to a quarterly WSATC meeting. The Department of Labor and Industries, Apprenticeship Section's manager may administratively approve requests for revisions in the following areas of the standards:
 - a. Program name

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- b. Sponsor's introductory statement
 - c. Section III: Conduct of Program Under Washington Equal Employment Opportunity Plan
 - d. Section VII: Apprentice Wages and Wage Progression
 - e. Section IX: Related/Supplemental Instruction
 - f. Section XI: Sponsor – Responsibilities and Governing Structure
 - g. Section XII: Subcommittees
 - h. Section XIII: Training Director/Coordinator
3. The sponsor will utilize competent instructors as defined in WAC 296-05-003 for RSI. Furthermore, the sponsor will ensure each instructor has training in teaching techniques and adult learning styles, which may occur before or within one year after the apprenticeship instructor has started to provide instruction.

C. Management of Apprentices:

1. Each apprentice (and, if under 18 years of age, the parent or guardian) will sign an apprenticeship agreement with the sponsor, who will then register the agreement with the Department before the apprentice attends RSI classes, or within the first 30 days of employment as an apprentice. For the purposes of industrial insurance coverage and prevailing wage exemption under RCW 39.12.021, the effective date of registration will be the date the agreement is received by the Department.
2. The sponsor must notify the Department within 30 days of all requests for disposition or modification to apprentice agreements, which may include:
 - a) Certificate of completion
 - b) Additional credit
 - c) Suspension (i.e. military service or other)
 - d) Reinstatement
 - e) Cancellation
 - f) Corrections
 - g) Step Upgrades
 - h) Probation Completion date
 - i) Other (i.e., name changes, address)
 - j) Training Agent Cancellation
3. The sponsor commits to rotate apprentices in the various processes of the skilled occupation to ensure the apprentice is trained to be a competent journey-level worker.
4. The sponsor shall periodically review and evaluate apprentices before advancement to the apprentice's next wage progression period. The evidence of such advancement will be the record of the apprentice's progress on the job and during related/supplemental instruction.
5. The sponsor has the obligation and responsibility to provide, insofar as possible, reasonably continuous employment for all apprentices in the program. The sponsor

may arrange to transfer an apprentice from one training agent to another or to another program when the sponsor is unable to provide reasonably continuous employment, or they are unable to provide apprentices the diversity of experience necessary for training and experience in the various work processes as stated in these standards. The new training agent will assume all the terms and conditions of these standards. If, for any reason, a layoff of an apprentice occurs, the apprenticeship agreement will remain in effect unless canceled by the sponsor.

6. An apprentice who is unable to perform the on-the-job portion of apprenticeship training may, if the apprentice so requests and the sponsor approves, participate in related/supplemental instruction, subject to the apprentice obtaining and providing to the sponsor written requested document/s for such participation. However, time spent will not be applied toward the on-the-job portion of apprenticeship training.
7. The sponsor shall hear and decide all complaints of violations of apprenticeship agreements.
8. Upon successful completion of apprenticeship, as provided in these standards, and passing the examination that the sponsor may require, the sponsor will recommend the WSATC award a Certificate of Completion of Apprenticeship. The sponsor will make an official presentation to the apprentice who has successfully completed his/her term of apprenticeship.

D. Training Agent Management:

1. The sponsor shall offer training opportunities for apprentices by ensuring reasonable and equal working and training conditions are applied uniformly to all apprentices. The sponsor shall provide training at an equivalent cost to that paid by other employers and apprentices participating in the program. The sponsor shall not require an employer to sign a collective bargaining agreement as a condition of participation.
2. The sponsor must determine whether an employer can adequately furnish proper on the job training to an apprentice in accordance with these standards. The sponsor must also require any employer requesting approved training status to complete an approved training agent agreement and to comply with all federal and state apprenticeship laws, and these standards.
3. The sponsor will submit training agent agreements to the Department with a copy of the agreement and/or the list of approved training agents within thirty calendar days from the effective date. Additionally, the sponsor must submit rescinded training agent agreements to the Department within thirty calendar days of said action.

E. Committee governance (if applicable): (see WAC 296-05-009)

1. Apprenticeship committees shall elect a chairperson and a secretary who shall be from opposite interest groups, i.e., chairperson-employers; secretary-employees, or vice versa. If the committee does not indicate its definition of quorum, the interpretation will be "50% plus 1" of the approved committee members. The sponsor must also provide the following information:

- a. Quorum: See Above
- b. Program type administered by the committee: **Individual Non Joint**
- c. The employer representatives shall be:

Paul LoBello - Chairperson
1400 Taurus Court
Loveland, CO. 80537

Craig Greenslit
1400 Taurus Court
Loveland, CO. 80537

- d. The employee representatives shall be:

Steve Bruns - Secretary
1400 Taurus Court
Loveland, CO. 80537

Justin Braswell
1400 Taurus Court
Loveland, CO. 80537

F. Plant programs

For plant programs the WSATC or the Department designee will act as the apprentice representative. Plant programs shall designate an administrator(s) knowledgeable in the process of apprenticeship and/or the application of chapter 49.04 RCW and chapter 296-05 WAC and these standards.

The designated administrator(s) for this program is/are as follows:

NA

XII. SUBCOMMITTEE:

Subcommittee(s) approved by the Department, represented equally from management and non-management, may also be established under these standards, and are subject to the main committee. All actions of the subcommittee(s) must be reviewed by the main committee. Subcommittees authorized to upgrade apprentices and/or conduct disciplinary actions must be structured according to the same requirements for main committees.

None

Received 12/6/19 Bellingham - GWP

TANCO ENGINEERING INC.

Received 11/19/19 Bellingham - GWP

Teri Gardner 12-6-19
Teri Gardner 11-27-19

XIII. TRAINING DIRECTOR/COORDINATOR:

The sponsor may employ a person(s) as a full or part-time training coordinator(s)/ training director(s). This person(s) will assume responsibilities and authority for the operation of the program as are delegated by the sponsor.

Bruce Frederiksen
1400 Taurus Court
Loveland, CO. 80537

Journey Level Wage Rate

From which apprentices' wages rates are computed

From Tanco Engineering Inc.

Occupations	County(s)	Journey Level Wage Rate	Effective Date:
Industrial Tank Boilermaker	State Of Washington	\$23.34	+12/1/2019

Received 11/19/19 Bellingham - JWP

Teri Gardner 11-27-19

Tanco Engineering, Inc.

Washington Apprenticeship Committee

Selection of Employee Committee Members

On September 19, 2019, Tanco management sent a letter to employees in Washington notifying them of Tanco's intention to seek approval of an apprenticeship program from the Washington State Apprenticeship Council, and to form an apprenticeship committee consisting of two (2) management representatives and two (2) employee representatives. In the same letter, Tanco requested that the employees select the two (2) employee representatives from the pool of qualified employees who were willing to serve.

On September 27, 2019, Tanco's Washington employees notified Tanco's management that they had selected Steve Bruns and Justin Braswell as the employee representatives on Tanco's Washington Apprenticeship Committee. On November 6, 2019, Tanco management was notified that Steve Bruns would serve as Secretary of Tanco's Washington Apprenticeship Committee.



Received 11/19/19 Bellingham - gwt
**Apprenticeship Committee Representative
Qualification Information
Experience & Education History**

NAME OF PROGRAM/SPONSOR:	Tanco Engineering Inc.	<i>Teri Gardner 11-27-19</i>
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Committee Representative Name: Paul A. LoBello

POSITION (Most recent first)	EMPLOYER / ORGANIZATION	FROM: (Month & Year)	TO: (Month & Year)
Vice President	Tanco Engineering, Inc.	1/2004	11/2019
Project Manager	Tanco Engineering, Inc.	6/1996	12/2003
Contracting Engineer	Chicago Bridge & Iron Co.	1/1992	5/1996
Various (Engineering, Construction, Manufacturing, Estimating)	Chicago Bridge & Iron Co.	6/1982	12/1991

Name and Location of Training and/or School	Month/Year Attended From To		Program of Study	Type of Certificate or Degree Awarded, if any
Christian Brothers College	8/1978	5/1982	Civil Engineering	Bachelor of Science
Bishop Byrne High School	8/1974	5/1978	High School	Diploma

Sponsors may attach additional pages if necessary.



Received 11/19/19 Bellingham - JWP
**Apprenticeship Committee Representative
Qualification Information
Experience & Education History**

NAME OF PROGRAM/SPONSOR:	Tanco Engineering Inc.	<i>Teri Gardner 11-27-19</i>
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Committee Representative Name: Justin Braswell

POSITION (Most recent first)	EMPLOYER / ORGANIZATION	FROM: (Month & Year)	TO: (Month & Year)
Boilermaker Foreman	Tanco Engineering	8/16	Present
Boilermaker Assistant Foreman	Tanco Engineering	10/07	8/16
Boilermaker Welder	Tanco Engineering	7/02	10/07

Name and Location of Training and/or School	Month/Year Attended From To		Program of Study	Type of Certificate or Degree Awarded, if any
Tulsa Welding School	11/01	6/02	Professional Welding	AWS Certification

NCCCO Certified Crane Operator (Fixed and Swing Cab)

Sponsors may attach additional pages if necessary.



Received 11/19/19 Bellingham - gwk
**Apprenticeship Committee Representative
Qualification Information
Experience & Education History**

NAME OF PROGRAM/SPONSOR:	Tanco Engineering Inc.	<i>Teri Gardner 11-27-19</i>
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Committee Representative Name: Steven J. Bruns

POSITION (Most recent first)	EMPLOYER / ORGANIZATION	FROM: (Month & Year)	TO: (Month & Year)
Boilermaker Foreman	Tanco Engineering, Inc.	11/93	Present
Boilermaker Welder	Tanco Engineering, Inc.	1/92	11/93

Name and Location of Training and/or School	Month/Year Attended From To		Program of Study	Type of Certificate or Degree Awarded, if any
Campbell County High School Gillette, WY	9/84	5/87	High School	Diploma

API Tank Entry Supervisor - Certification #32685
API 653 Inspector - Certification #6365

Sponsors may attach additional pages if necessary.



Received 11/19/19 Bellingham - GWP
**Apprenticeship Committee Representative
Qualification Information
Experience & Education History**

NAME OF PROGRAM/SPONSOR:	Tanco Engineering, Inc.	<i>Teri Gardner 11-27-19</i>
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Committee Representative Name: Craig A. Greenslit
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POSITION (Most recent first)	EMPLOYER / ORGANIZATION	FROM: (Month & Year)	TO: (Month & Year)
President/CFO/Project Manager	TANCO Engineering, Inc.	Feb. 2003	Current
Engineer	Flint Hills Resources	Aug. 1993	Jan. 2003

Name and Location of Training and/or School	Month/Year Attended From To		Program of Study	Type of Certificate or Degree Awarded, if any
University of Wyoming, Laramie, WY	Aug 1988	May 1993	Civil Engineering	BS Civil Engineering

Sponsors may attach additional pages if necessary.

Received 11/27/19 Bellingham - JWP

Teri Gardner 11-27-19

Apprenticeship Related/Supplemental Instruction (RSI) Plan Review

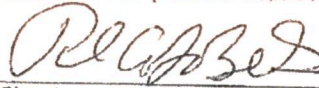
Program Sponsor Tanco Engineering Inc.	
Skilled Occupational Objective Industrial Tank Boilermaker	
Term/OJT Hours 6000 Hours	Total RSI Hours 432 Hours
Training Provider Tanco Engineering Inc.	

By the signature placed below, the program sponsor agrees to provide the prescribed RSI for each registered apprenticeship and assures that:

1. The RSI content and delivery method is and remains reasonably consistent with the latest occupational practices, improvements, and technical advances.
2. The RSI is coordinated with the on-the-job work experience.
3. The RSI is provided in safe and healthful work practices in compliance with WISHA and applicable federal and state regulations.

Paul A. LoBello

Printed Name of Program Sponsor



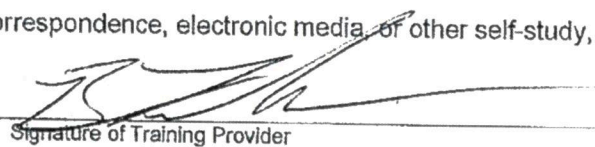
Signature of Program Sponsor

By the signature placed below, the training provider assures that:

1. The RSI will be conducted by instructors who meet the qualifications of "competent instructor" as described in WAC 296-05-003.
 - a. Has demonstrated a satisfactory employment performance in his/her occupation for a minimum of three years beyond the customary learning period for that occupation; and
 - b. Meets the State Board for Community and Technical Colleges requirements for a professional technical instructor (see WAC 131-16-080 through -094), or be a subject matter expert, which is an individual, such as a journey worker, who is recognized within the industry as having expertise in a specific occupation; and
 - c. Has training in teaching techniques and adult learning styles, which may occur before or within one year after the apprenticeship instructor has started to provide the related technical instruction.
2. If using alternative forms of instruction, such as correspondence, electronic media, or other self-study, such instruction is clearly defined.

Bruce Frederiksen

Print Name Training Provider



Signature of Training Provider

Training Director / Coordinator

Title of Training Provider

Tanco Engineering Inc.

Organization of Training Provider

If there are additional training providers, please provide information and signatures on the next page.

Additional Resources: Apprenticeship Related Supplemental Instruction (RSI) Plan Review Glossary of Term (F100-519-000) and Apprenticeship Related Supplemental Instruction (RSI) Plan Review Criteria (F100-521-000).

SBCTC Program Administrator has reviewed RSI plan and recommendations of the Trade Committee.

Click or tap here to enter text.

Print Name of SBCTC Program Administrator

Signature of SBCTC Program Administrator

Date

☐ SBCTC recommends approval

☐ SBCTC recommends return to sponsor

Additional Training Providers (if necessary)

Click or tap here to enter text.

Print Name Training Provider

Click or tap here to enter text.

Title of Training Provider

Click or tap here to enter text.

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Organization of Training Provider

Program Sponsor: Tanco Engineering Inc.	Skilled Occupational Objective: Industrial Tank Boilermaker – Year 1
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Note: The description of each element must be in sufficient detail to provide adequate information for review by the SBCTC and Review Committee. To add more elements, click on the plus sign that appears below the "Description of element/course" field.

Describe minimum hours of study per year in terms of (check one):

- ☐ 12-month period from date of registration.
☐ Defined 12-month school year.
☒ 2,000 hours of on-the-job training.

Element/Course: Tanco Safe Work Practices Annual Training	Planned Hours: 8
Mode of Instruction (check all that apply) <input type="checkbox"/> Classroom <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Explains awareness level understanding of possible asbestos sources in industry. Provides general knowledge of potential for ammonia exposure in the refining industry. Establishes electrical safe work practices for unqualified persons. Describes the need for awareness and control of hazards. Identifies and provides training on hazards associated with confined space entry. Introduces employee handling of compressed gasses. Describes the identification of fire hazards and the creation of written procedures. Teaches Tanco Engineering's bloodborne pathogens program. Establishes a basic understanding of Tanco Engineering's hazards identification, assessment and control process. Discusses and establishes requirements for protection from H2S exposure. Teaches a basic understanding of the use and hazards of hand and power tools. Establishes a basic ladder safety program. Teaches an awareness of hazardous waste operations and the role of Tanco Engineering employees. Provides a basic understanding of hearing protection requirements and the resources available. Provides the minimum lockout-tagout requirements utilized to isolate energy sources. Informs employees of the dangers of and precautions necessary during welding and other hot work. Provides a basic level of understanding of the personal protective equipment required and available in our industry. Trains employees on how to minimize the consequences to them during a catastrophic release or failure at a facility. Provides employees with a basic understanding of the potential exposure to respiratory hazards and how to protect themselves from exposure. Gives a basic understanding of proper lifting techniques. Educates employees on fall protection requirements and options for meeting those requirements. Describes options for minimizing the likelihood of injuries associated with adverse working conditions such as extended hours, inclement weather (heat, cold wind) etc. Provides an understanding of the requirements to drive Department of Transportation regulated vehicles. Teaches the inherent authority and responsibility to Stop Work given to everyone to prevent injury or property damage. Discusses the basics of the work permitting processes. Provides awareness training in the use of compressed air and associated tools (air supplied by plant utilities and/or compressors).	

Element/Course: Basic Rigger Training	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Provides basic information related to rigging and rigging hardware, such as slings, rigging hitches, and hoists. Emphasizes safe working habits in the vicinity of rigging operations.	

Element/Course: Signal Person Training	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Describes the communication process between the signal person and the crane operator.	

Element/Course: CPR/1 st Aid Certification	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: CPR/1 st Aid Certification Course	

Element/Course: NCCER CORE Intro to Construction Math 00102-15	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Reviews basic math skills related to the construction trades and demonstrates how they apply to the trades. Covers multiple systems of measurement, decimals, fractions, and basic geometry.	

Element/Course: NCCER Intro to Boilermaking Tools 34103-10	Planned Hours: 6
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Introduces the wide variety of hand and power tools used by boilermakers. Covers hydraulic, pneumatic, and electric power tools and the safety concerns associated with these tools.	

Element/Course: NCCER CORE Intro to Material Handling 00109-15	Planned Hours: 6
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Describes the hazards associated with handling materials and provides techniques to avoid both injury and property damage. Common material handling equipment is also introduced	

Element/Course: Confined Space Attendant Training	Planned Hours: 4
Mode of Instruction (check all that apply) <input type="checkbox"/> Classroom <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Introduction to the roles and responsibilities of the Confined Space Attendant.	

Element/Course: Fire Watch Training	Planned Hours: 4
Mode of Instruction (check all that apply) <input type="checkbox"/> Classroom <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Introduction to the roles and responsibilities of the fire watch.	

Element/Course: NCCER Steel Erection 75110-13	Planned Hours: 6
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Discusses how to recognize, avoid, and prevent hazards associated with the use of steel-erection equipment. Describes the use of appropriate personal protective equipment for steel erection.	

Element/Course: NCCER Boilermaking Base Metal Prep 34107-10	Planned Hours: 5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc. Description of element/course: Describes how to clean and prepare all types of base metals for cutting and welding.	

Element/Course: NCCER Boilermaking Oxy-Fuel Cutting 34105-10	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc. Description of element/course: Explains the safety requirements for oxyfuel cutting. Identifies oxyfuel cutting equipment and setup requirements. Explains how to light, adjust, and shut down oxyfuel equipment.	

Element/Course: NCCER Boilermaking Welding Basics 34108-10	Planned Hours: 20
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc. Description of element/course: Describes the different welding and cutting processes and related equipment. Includes filler metals and their applications. Covers joint design and the codes that govern welding practices.	

Element/Course: NCCER Intro to Boilermaking 34101-10	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc. Description of element/course: Provides an overview of the boilermaker craft, including the uses of boilers in industry, common terms used in the field, and a description of the career opportunities available in the field.	

Element/Course: NCCER Boilermaking Safety 34102-10	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc. Description of element/course: Covers safety issues specific to boilermakers on the job.	

Element/Course: NCCER Iron-Worker Trade Math 30201-11	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc. Description of element/course: Explains fractions, basic math, and includes multiple opportunities for practical applications.	

Element/Course: NCCER Boilermaking Materials 34104-10	Planned Hours: 5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc. Description of element/course: Identifies materials used in the construction of boilers, including material properties, standards and codes, and material markings.	

Element/Course: NCCER Welding/Base Metal Prep 29105-15	Planned Hours: 6
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Describes how to clean and prepare all types of base metals for cutting or welding. Identifies and explains joint design and base metal preparation for all welding tasks.	

Element/Course: NCCER Welding / Joint Fit-Up and Alignment 29110-15	Planned Hours: 6
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Describes the use of fit-up gauges and measuring devices to check fit-up and alignment and the use of plate and pipe fit-up and alignment tools to properly prepare joints. Explains how to check for joint misalignment and poor fit.	

Element/Course: Tanco Rigging Equipment Inspections	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Covers the components of wire rope, as well as inspection requirements and procedures for using wire rope, load blocks, and sheaves. The proper installation of wire rope, as well as maintenance guidelines and end terminations and preparation, are also explained.	

Element/Course: Tanco Fall Protection Equipment Inspections	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Covers the equipment used in Tanco's fall protection program and the inspection requirements for each piece.	

Element/Course: Tanco Electrical and Welding Equipment Inspections	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Covers the inspection and documentation of scheduled interval and pre-use inspections of Tanco's power tools, electric cords, welding leads grounding equipment etc.	

Element/Course: NCCER Pipe Hangers and Supports for Boilermakers 34203-11	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Identifies pipe hangers and supports used in our industry. Explains how to read and interpret pipe support drawings and symbols. Explains how to select, store, handle, install, and maintain spring can supports.	

Program Sponsor:
Tanco Engineering Inc.

Skilled Occupational Objective:
Industrial Tank Boilermaker – Year 2

Note: The description of each element must be in sufficient detail to provide adequate information for review by the SBCTC and Review Committee. To add more elements, click on the plus sign that appears below the "Description of element/course" field.

Describe minimum hours of study per year in terms of (check one):

- ☐ 12-month period from date of registration.
☐ Defined 12-month school year.
☒ 2,000 hours of on-the-job training.

Element/Course: Tanco Safe Work Practices Annual Training	Planned Hours: 8
Mode of Instruction (check all that apply) <input type="checkbox"/> Classroom <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Explains awareness level understanding of possible asbestos sources in industry. Provides general knowledge of potential for ammonia exposure in the refining industry. Establishes electrical safe work practices for unqualified persons. Describes the need for awareness and control of hazards. Identifies and provides training on hazards associated with confined space entry. Introduces employee handling of compressed gasses. Describes the identification of fire hazards and the creation of written procedures. Teaches Tanco Engineering's bloodborne pathogens program. Establishes a basic understanding of Tanco Engineering's hazards identification, assessment and control process. Discusses and establishes requirements for protection from H2S exposure. Teaches a basic understanding of the use and hazards of hand and power tools. Establishes a basic ladder safety program. Teaches an awareness of hazardous waste operations and the role of Tanco Engineering employees. Provides a basic understanding of hearing protection requirements and the resources available. Provides the minimum lockout-tagout requirements utilized to isolate energy sources. Informs employees of the dangers of and precautions necessary during welding and other hot work. Provides a basic level of understanding of the personal protective equipment required and available in our industry. Trains employees on how to minimize the consequences to them during a catastrophic release or failure at a facility. Provides employees with a basic understanding of the potential exposure to respiratory hazards and how to protect themselves from exposure. Gives a basic understanding of proper lifting techniques. Educates employees on fall protection requirements and options for meeting those requirements. Describes options for minimizing the likelihood of injuries associated with adverse working conditions such as extended hours, inclement weather (heat, cold wind) etc. Provides an understanding of the requirements to drive Department of Transportation regulated vehicles. Teaches the inherent authority and responsibility to Stop Work given to everyone to prevent injury or property damage. Discusses the basics of the work permitting processes. Provides awareness training in the use of compressed air and associated tools (air supplied by plant utilities and/or compressors).	

Element/Course: NCCER Trade Drawings 30204-11 & 34204-11	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Explains how to read blueprints or drawings and their symbols. Explains plot plans, structural drawings, elevation drawings, as-built drawings, equipment arrangement drawings, P&IDs, isometric drawings, spool sheets, detail sheets, and orthographic drawings.	

Element/Course: NCCER Identifying and Installing Valves 34202-11	Planned Hours: 6
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Identifies and explains the different types of valves used in boiler systems. Identifies valve components and explains their functions. Explains how to select, store, handle, and install valves. Also explains how to interpret valve markings and nameplate information found on valves.	

Element/Course: NCCER Fasteners and Anchors 34205-11	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Covers threaded and non-threaded fasteners and anchoring devices. Explains how to select fasteners and anchors for given applications. Describes and explains how to install threaded, non-threaded, and insulated fasteners and anchors.	

Element/Course: NCCER Hydrostatic Testing 34308-11	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Lists pretest requirements for boiler system piping systems and equipment. Describes service and flow tests, head pressure tests, and hydrostatic tests performed on boiler system piping systems and equipment.	

Element/Course: NCCER Flange Bolting CTFB-17	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Identifies and describes flanges and gaskets and their proper installation.	

Element/Course: NCCER Cold Cutting CTCC-17	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Describes and explains the process of cold cutting pipe.	

Element/Course: NCCER Threaded Pipe Fabrication CTPP-17	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Describes and explains how to properly thread pipe.	

Element/Course: NCCER Maintenance Welding Basics 34108-10	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Describes welding and cutting processes and related equipment. Includes filler metals, joint design, and the codes that govern welding practices.	

Element/Course: NCCER Quality Assurance 34407-12	Planned Hours: 10
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Covers codes governing welding and boilers. Describes weld imperfections and their causes. Identifies and explains different nondestructive and destructive testing methods. Explains how to make visual inspections of fillet welds. Describes welder qualification testing, and stresses the importance of quality workmanship.	

Element/Course: NCCER Visually Inspect Welds for Department of Transportation Compliance CT38_3-17	Planned Hours: 6
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Describes and explains the inspection of welds for Department of Transportation compliance.	

Element/Course: NCCER Routine Inspection of Breakout Tanks CT27_1-17	Planned Hours: 6
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Describes and explains the inspection of Department of Transportation breakout tanks.	

Element/Course: NCCER Field Fabrication 30115-11	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Identifies the safety hazards associated with field fabrication. Describes how to use common layout tools. Explains how to fabricate angle iron, channel, T-shapes and W-shapes to given dimensions.	

Element/Course: NCCER Cutting and Fitting Gaskets 34106-10	Planned Hours: 6
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Describes the various types of gasket materials used in mating flanges and presents the proper procedures for laying out and cutting a flange gasket. Covers the proper tightening procedure for mating flanges.	

Element/Course: NCCER Socket-Weld Pipe Fabrication for Boilermakers 34207-11	Planned Hours: 6
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Identifies and explains different types of socket weld piping materials and fittings. Explains how to read socket weld piping drawings. Explains how to determine pipe lengths between socket weld fittings, as well as how to mate socket weld fittings to pipe.	

Element/Course: NCCER Survey Equipment Use and Care 30208-11	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Identifies survey equipment and uses. Explains the proper set up and use of a builder's level. Covers how to shoot elevations, sweep a column for plumb, etc.	

Element/Course: NCCER Position Arc Welding 30202-11	Planned Hours: 16
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Identifies and explains weld joints, weld positions, and open V-butt welds. Describes how to prepare arc welding equipment and how to make flat welds, horizontal welds, vertical welds, and overhead welds.	

Element/Course: NCCER Piping Systems 08201-06	Planned Hours: 2
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Introduces chemical, compressed air, fuel oil, steam, and water piping systems and explains how to identify them by color-code. It also explains thermal expansion of pipes and pipe insulation.	

Element/Course: NCCER Trade Math 08204-06	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Explains how to use ratios and proportions, solve basic algebra, area, volume, and circumference problems, and solve for right triangles using the Pythagorean theorem.	

Element/Course: NCCER Welding Symbols 34206-11	Planned Hours: 6
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Explains the different parts of a welding symbol and how to read symbols on welding drawings, specifications, and welding procedure specifications. Describes the symbols for fillet welds, groove welds, miscellaneous other welds, and non-destructive tests.	

Element/Course: NCCER Air-Carbon Arc Cutting and Gouging 34210-11	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Describes the safe setup, operation and care of air-carbon arc cutting equipment	

Element/Course: NCCER Structural Ironworking for Tanks 30205-11	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Describes pre-erection activities for structural steel. Provides procedures for erecting bearing devices, columns, beams, girders, joists, bracing, and bridging.	

Element/Course: NCCER Steel Joists and Girders for Tanks 30206-11	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Identifies the types of joists, methods of end support, and the types of bridging available. Explains how to locate the ironworking information on framing plans and describes steel joist installation procedures.	
Program Sponsor:	Skilled Occupational Objective:

Note: The description of each element must be in sufficient detail to provide adequate information for review by the SBCTC and Review Committee. To add more elements, click on the plus sign that appears below the "Description of element/course" field.

Describe minimum hours of study per year in terms of (check one):

- ☐ 12-month period from date of registration.
☐ Defined 12-month school year.
☒ 2,000 hours of on-the-job training.

Element/Course: Tanco Safe Work Practices Annual Training	Planned Hours: 8
Mode of Instruction (check all that apply) <input type="checkbox"/> Classroom <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Explains awareness level understanding of possible asbestos sources in industry. Provides general knowledge of potential for ammonia exposure in the refining industry. Establishes electrical safe work practices for unqualified persons. Describes the need for awareness and control of hazards. Identifies and provides training on hazards associated with confined space entry. Introduces employee handling of compressed gasses. Describes the identification of fire hazards and the creation of written procedures. Teaches Tanco Engineering's bloodborne pathogens program. Establishes a basic understanding of Tanco Engineering's hazards identification, assessment and control process. Discusses and establishes requirements for protection from H2S exposure. Teaches a basic understanding of the use and hazards of hand and power tools. Establishes a basic ladder safety program. Teaches an awareness of hazardous waste operations and the role of Tanco Engineering employees. Provides a basic understanding of hearing protection requirements and the resources available. Provides the minimum lockout-tagout requirements utilized to isolate energy sources. Informs employees of the dangers of and precautions necessary during welding and other hot work. Provides a basic level of understanding of the personal protective equipment required and available in our industry. Trains employees on how to minimize the consequences to them during a catastrophic release or failure at a facility. Provides employees with a basic understanding of the potential exposure to respiratory hazards and how to protect themselves from exposure. Gives a basic understanding of proper lifting techniques. Educates employees on fall protection requirements and options for meeting those requirements. Describes options for minimizing the likelihood of injuries associated with adverse working conditions such as extended hours, inclement weather (heat, cold wind) etc. Provides an understanding of the requirements to drive Department of Transportation regulated vehicles. Teaches the inherent authority and responsibility to Stop Work given to everyone to prevent injury or property damage. Discusses the basics of the work permitting processes. Provides awareness training in the use of compressed air and associated tools (air supplied by plant utilities and/or compressors).	

Element/Course: NCCER Butt-Weld Pipe Fabrication for Boilermakers 34208-11	Planned Hours: 12
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Covers preparing pipe ends for butt welding, determining pipe lengths between butt weld fittings, and using welding jigs to align pipe and butt weld fittings for welding. Explains how to select and install backing rings.	

Element/Course: NCCER Hot Taps 08404-07	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Explains hot tap safety and potential hazards, how to identify and install the fittings used with hot taps, and how to operate a hot tap machine.	

Element/Course: NCCER Intro to Supervisory Roles 08409-07	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Covers the basic skills required for supervising personnel including project organization, problem solving, and safety.	

Element/Course: NCCER Stress Relieving 34406-12	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Covers metal distortion and ways to prevent it. Explains thermal growth in metals, and how to calculate thermal growth in given metals. Explains how misalignment creates stress in metals. Describes ways to relieve stress in piping that is experiencing distortion due to welding, thermal growth, or misalignment.	

Element/Course: NCCER Advanced Pipe Fabrication 08402-07	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Covers the skills needed to layout and fabricate mitered bends, laterals, wyes, and ninety-degree intersections with tables of ordinates or by calculating ordinates with a calculator. These skills are necessary when specialty bends and intersections are required.	

Element/Course: NCCER Lift Planning 21304	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Discusses lift plan implementation including reference information, calculations, single and multiple crane lifting, critical lifts, and engineering considerations.	

Element/Course: Personnel Lifts - Tanco SWP-136	Planned Hours: 4
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Describes the preparation for and execution of lifting personnel with a hydraulic crane and manbasket.	

Element/Course: NCCER Flux Core Arc Welding 30314-12	Planned Hours: 20
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course: Describes the equipment and methods used in flux core arc welding. Includes proper selection and use of filler metals and shielding gases, as well as techniques for performing fillet and V-groove welding in various positions.	

Element/Course: NCCER Shielded Metal Arc Welding Equipment and Setup 29107-09	Planned Hours: 2
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Tanco Engineering Inc.	
Description of element/course:	

Describes Shielded Metal Arc Welding and welding safety. Explains how to connect welding current and setup arc welding equipment. Identifies and explains using tools for cleaning welds.

Element/Course: NCCER Shielded Metal Arc Welding - Electrodes 29108-09	Planned Hours: 2
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Explains electrode characteristics and different types of filler metals. Describes the role of the American Welding Society (AWS) and the American Society of Mechanical Engineers (ASME). Explains proper storage and control of filler metals and identifies the use of codes.	

Element/Course: NCCER Shielded Metal Arc Welding - Beads and Fillet Welds 29109-09	Planned Hours: 16
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Describes the preparation and setup of arc welding equipment and the process of striking an arc. Explains how to detect and correct arc blow. Describes how to make stringer, weave, overlapping beads, and fillet welds	

Element/Course: NCCER Shielded Metal Arc Welding - Open V-Groove Welds 29112-09	Planned Hours: 16
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Explains Shielded Metal Arc Welding electrode characteristics and different types of filler metals. Describes the role of the American Welding Society (AWS) and the American Society of Mechanical Engineers (ASME). Explains proper storage and control of filler metals and identifies the use of codes.	

Element/Course: NCCER Tank Repair 62307-02	Planned Hours: 40
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Tanco Engineering Inc.	
Description of element/course: Explains complete tank repair, including electrically insulated fittings and flanges, welding, bottom repair, bottom replacement, arc burn weld repair, roof installation, shell plate replacement, aluminum and steel floating roof demolition, building a floating roof, floating roof in-service seal replacement, nozzles, manways, and sumps.	