117th TESDA BOARD MEETING

07 November 2019, Thursday, 1:00 p.m. 7/F TESDA Board Room, Office of the Chair TESDA Complex, South Luzon Expressway, Fort Bonifacio, Taguig City

Resolution No. 2019 - 65 (Page 1 of 4 pages)

APPROVING AND PROMULGATING THE AMENDED TRAINING REGULATIONS FOR HEAVY EQUIPMENT OPERATION (CRAWLER CRANE) NC III

WHEREAS, TESDA Board Resolution No. 2007-20 was issued "Approving and Promulgating the Training Regulations for Heavy Equipment Operation (Crawler Crane) NC II last 27 August 2007 during the 56th TESDA Board Meeting;

WHEREAS, it is the policy of TESDA to review after three (3) years any Training Regulations (TRs) promulgated by the TESDA Board;

WHEREAS, there is a need to review the existing Training Regulations in view of the developments in technology and current trends in the construction industry and in support of the Build, Build, Build Program of the government;

WHEREAS, the Association of Carriers and Equipment Lessors, Inc. (ACEL) with the assistance of Qualifications and Standards Office (QSO) of TESDA have reviewed the existing Training Regulations in Heavy Equipment Operation (Crawler Crane) NC II to Heavy Equipment Operation (Crawler Crane) NC III, and have recommended amendments;

WHEREAS, industry experts and partners, headed by the President of the Association of Carriers and Equipment Lessors, Inc. (ACEL), with the technical assistance of the Qualifications and Standards Office (QSO) endorsed the proposed amendments;

WHEREAS, during the 113th Standards-Setting and Systems Development (SSSD) Committee Meeting held on 05 November 2019, the Committee deliberated upon and agreed to favorably recommend the approval and promulgation of the amendments of the Training Regulations for Heavy Equipment Operation (Crawler Crane) NC III, as attached in Annex "A" and made an integral part of this Resolution;

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117th TESDA BOARD MEETING

07 November 2019, Thursday, 1:00 p.m.
7/F TESDA Board Room, Office of the Chair
TESDA Complex, South Luzon Expressway,
Fort Bonifacio, Taguig City

Resolution No. 2019 - 65 (Page 2 of 4 pages)

APPROVING AND PROMULGATING THE AMENDED TRAINING REGULATIONS FOR HEAVY EQUIPMENT OPERATION (CRAWLER CRANE) NC III

WHEREAS, during the 117th TESDA Board Meeting on 07 November 2019 at 1:00 p.m., the TESDA Board considered the amendments and approved the promulgation of the amended Training Regulations for Heavy Equipment Operation (Crawler Crane) NC III;

NOW, THEREFORE, BE IT RESOLVED AS IT IS HEREBY RESOLVED, that the TESDA Board in its meeting today, 07 November 2019 at 1:00 p.m., has approved and promulgated the aforementioned Training Regulations for Heavy Equipment Operation (Crawler Crane) NC III as herein appended;

BE IT RESOLVED, FINALLY, that:

- (1) Copies of this Resolution and the abovementioned Training Regulations be published in the Official Gazette or in a newspaper of general circulation, and disseminated to all concerned, and the same shall be effective fifteen (15) days upon publication;
- (2) All programs registered under the current Heavy Equipment Operation (Crawler Crane) NC II must comply with the requirements of the abovementioned Training Regulations as amended. The one-year period of re-registration under this amended Training Regulations shall commence on the date of effectivity as indicated in the Implementing Guidelines/TESDA Circular for the deployment of the Training Regulations to be issued by the TESDA Secretariat; and

(3) Graduates of TVET programs covered by the aforementioned Training Regulations shall be required to undergo mandatory assessment under the national assessment and certification program.

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Resolution No. 2019 - 65
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APPROVING AND PROMULGATING THE AMENDED TRAINING REGULATIONS FOR HEAVY EQUIPMENT OPERATION (CRAWLER CRANE) NC III

Adopted this 7th day of November 2019.

ATTY. MARICHELLE D. DE GUZMAN Board Secretary VI

Attested by:

SEC. ISIDRO S. LAPEÑA, PhD., CSEE Designated Chairperson, TESDA Board Director General, TESDA

USEC. RENATO L. EBARLE
Department of Labor & Employment

USEC. EPIMACO V. DENSING III
Department of Interior & Local Government

USEC. DIOSDADO M. SAN ANTONIO
Department of Education

USEC. BRENDA L. NAZARETH-MANZANO
Department of Science and Technology

MR. ISIDRO ANTONIO C. ASPER Board Member, Labor Sector

ATTY. BAYANI G. DIWA Board Member, Labor Sector

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APPROVING AND PROMULGATING THE AMENDED TRAINING REGULATIONS FOR HEAVY EQUIPMENT OPERATION (CRAWLER CRANE) NC III

MR. RAMON R. DE LEON Board Member, Labor Sector

DR. LEONIDA BAYANI-ORTIZ Board Member, Employer Sector MR. ROGELIO J. CHAVEZ, JR. Board Member, Labor Sector

DR. GUIMBA B. POINGAN Board Member, Education & Training Institutions Sector

MS. PATRICIA C. DALMAS
Board Member, Education &
Training Institutions Sector

AMENDMENTS ON TRAINING REGULATIONS FOR HEAVY EQUIPMENT OPERATION (CRAWLER CRANE) NC III

Existing Promulgated Training Regulations (Board Resolution No. 2007-20)	Amendments
Qualification Title	
Heavy Equipment Operation	Heavy Equipment Operation
(Crawler Crane) NC II	(Crawler Crane) NC III
SECTION 1 – Definition of the Qualification	
consists of competencies that workers must achieve to enable them to perform tasks such lifting and transferring of heavy loads in construction sites or other locations.	(CRAWLER CRANE) NC III qualification consists of competencies that workers must achieve to enable them to perform tasks such as inspection,
Job Title	
Crawler Crane Operator SECTION 2: Competency Standards	Same
Basic Competencies	Basic Competencies
 Participate in workplace communication 	 Lead workplace communication
 Work in a team environment 	 Lead small teams
 Practice career professionalism Practice occupational health and safety procedures 	 Apply critical thinking and problem-solving techniques in the workplace Work in a diverse environment Propose methods of applying learning and
	innovation in the organization
	 Use information systematically Evaluate occupational safety and health work practices
	 Evaluate environmental work practices Facilitate entrepreneurial skills for microsmall-medium enterprises (MSMEs)

Existing Promulgated Training Regulations (Board Resolution No. 2007-20)	Amendments
 Common Competencies Prepare construction materials and tools Observe procedures, specifications and manuals of instruction Interpret technical drawings and plans Perform mensurations and calculations Maintain tools and equipment 	Same
 Core Competencies Perform pre-and post-operation procedures for lifting equipment Perform basic preventive maintenance servicing for lifting equipment Perform productive operation for crawler crane 	 Core Competencies Perform pre and post-operation procedures for crawler crane Perform basic preventive maintenance servicing for crawler crane Perform productive operation for crawler crane
SECTION 3: Training Arrangements 3.1 Curriculum Design:	
Nominal Training Hours: 18 Hours (Basic Competencies) 18 Hours (Common Competencies) 120 Hours (Core Competencies) 156 Hours - TOTAL	Nominal Training Hours: 40 Hours (Basic Competencies) 24 Hours (Common Competencies) 160 Hours (Core Competencies) + 40 Hours – Supervised Industry Learning (SIL) TOTAL - 264 Hours
Course Description	IVIAL - 204 MOUIS
This course is designed to enhance the knowledge, desirable attitudes and skills in the use of crawler crane in accordance with industry standards. It covers core competencies such as: perform pre- and post operation procedure, perform productive operation, and perform basic	This course is designed to provide the learner with knowledge, practical skills and attitude, applicable in performing work activities involve in performing pre and post-operation procedures, performing basic preventive maintenance servicing and performing productive operation for crawler crane. This includes classroom learning activities and practical work in actual work site or simulation area.
	Upon completion of the course, the learners are expected to demonstrate the above-mentioned competencies to be employed. To obtain this, all units prescribed for this qualification must be achieved.

3.2 Training Delivery

The delivery of training should adhere to the design of the curriculum. Delivery should be guided by the 10 basic principles of the competency-based TVET.

- The training is based on curriculum developed from the competency standards;
- · Learning is modular in its structure;
- Training delivery is individualized and selfpaced;
- Training is based on work that must be performed;
- Training materials are directly related to the competency standards and the curriculum modules;
- Assessment is based in the collection of evidence of the performance of work to the industry required standard;
- Training is based both on and off-the-job components;
- Allows for recognition of prior learning (RPL) or current competencies;
- Training allows for multiple entry and exit;
- Approved training programs are nationally accredited.

The competency-based TVET system recognizes various types of delivery modes, both on and off-the-job as long as the learning is driven by the competency standards specified by the industry. The following training modalities may be adopted when designing training programs:

- The dualized mode of training delivery is preferred and recommended. Thus programs would contain both in-school and in-industry training or fieldwork components. Details can be referred to the Dual Training System (DTS) Implementing Rules and Regulations.
- Modular/self-paced learning is a competencybased training modality wherein the trainee is allowed to progress at his own pace. The trainer only facilitates the training delivery.
- Peer teaching/mentoring is a training modality wherein fast learners are given the opportunity to assist the slow learners.

Amendments

AS PER NEW TR FRAMEWORK (TESDA BR 2014-04)

- The delivery of training shall adhere to the design of the curriculum. Delivery shall be guided by the principles of competency-based TVET.
 - a. Course design is based on competency standards set by the industry or recognized industry sector; (Learning system is driven by competencies written to industry standards)
 - Training delivery is learner-centered and should accommodate individualized and self-paced learning strategies;
 - c. Training can be done on an actual workplace setting, simulation of a workplace and/or through adoption of modern technology.
 - d. Assessment is based in the collection of evidence of the performance of work to the industry required standards;
 - e. Assessment of competency takes the trainee's knowledge and attitude into account but requires evidence of actual performance of the competency as the primary source of evidence.
 - f. Training program allows for recognition of prior learning (RPL) or current competencies;
 - g. Training completion is based on satisfactory performance of all specified competencies.
- The competency-based TVET system recognizes various types of delivery modes, both on-and off-the-job as long as the learning is driven by the competency standards specified by the industry. The following training modalities and their variations/components may be adopted singly or in combination with other modalities when designing and delivering training programs:

- Supervised industry training or on-the-job training is an approach in training designed to enhance the knowledge and skills of the trainee through actual experience in the workplace to acquire a specific competencies prescribed in the training regulations.
- Distance learning is a formal education process in which majority of the instruction occurs when the students and instructors are not in the same place. Distance learning may employ correspondence study, or audio, video or computer technologies.

Amendments

2.1 Institution- Based:

- Dual Training System (DTS)/Dualized
 Training Program (DTP) which contain both in-school and in-industry training or fieldwork components. Details can be referred to the Implementing Rules and Regulations of the DTS Law and the TESDA Guidelines on the DTP;
- Distance learning is a formal education process in which majority of the instruction occurs when the students and instructor are not in the same place. Distance learning may employ correspondence study, audio, video, computer technologies or other modern technology that can be used to facilitate learning and formal and non-formal training. Specific guidelines on this mode shall be issued by the TESDA Secretariat.
- The traditional classroom-based or incenter instruction may be enhanced through use of learner-centered methods as well as laboratory or field-work components.

2.2 Enterprise-Based:

- Formal Apprenticeship Training within employment involving a contract between an apprentice and an enterprise on an approved apprenticeable occupation.
- Informal Apprenticeship is based on a training (and working) agreement between an apprentice and a master craftsperson wherein the agreement may be written or oral and the master craftsperson commits to training the apprentice in all the skills relevant to his or her trade over a significant period of time, usually between one and four years, while the apprentice commits to contributing productively to the work of the business. Training is integrated into the production process and apprentices learn by working alongside the experienced craftsperson.
- Enterprise-based Training- where training is implemented within the company in accordance with the requirements of the specific company. Specific guidelines on this mode shall be issued by the TESDA Secretariat.

ANNEX A

Existing Promulgated Training Regulations (Board Resolution No. 2007-20)	Amendments	
3.3 Trainee Entry Requirements This section specifies the qualifications of trainees and educational experience. Other requirements like health and physical requirements may also stated. Passing written entrance examinations may also be indicated if necessary: • can communicate both orally and in writing • physically and mentally fit • with good moral character • can perform basic mathematical computation	training should possess the following requirements:	

3.4 List of Tools, Equipment and Materials

Recommended list of tools, equipment and materials for the training of 25 trainees for the operation of crawler crane.

	TOOLS		EQUIPMENT		MATERIALS
QTY		QTY		QTY	
1 set	Wrenches (box and open-end_8-24 mm-metric & 7/16 -1" - English)	1 unit	Crawler Grane(MOA / rental)	5 kls	Multi- purpose grease
1 set	• Hammer_ballpeen (3-4 lbs)	1 unit	 Low bed trailer with tractor head & operator (MOA/rental) 	4 liters	• Engine oil (SAE 15w40)
1 set	• Plierst mechanical 10 ")	1 unit	Vacuum cleaner	20 liters	Hydraulic / steeping_fluid (TELLUS 68/10W)
1 pc	Adjustable wrench (18 ")	1 unit	Portable electric air compressor	10 liters	• Final drive/ differential (gear oil GP90/ 140)
1 pc	Grease gun			10 liters	Trans- mission oil (ATF)
1set	Screw driver (10 " flat & Philips)			4 liters	Water coolant
1 pc	* Putty knife			200 liters	Diesel fuel
1 pc	Pry bar (heavy duty)			5 liters	Battery distilled water
				1 set	Primary & secondary air filter
Constitution of Paper Incident State of		an interest and a second		1 pair	Working clothes
				10 pairs	Safety shoes
for excess and comfine command and distance optically in the American section				10 pairs 10	Gloves
		Permission of the Control of the Con		pcs	Goggles
				10 pcs	Dust Mask
				10 pcs	Hard hat
				2 units	 Test weights 3 tons 10 tons
				1 pc	 Crawler crane miniture
				1 pc	Operator's manual with load chart

Amendments

List of tools, equipment and materials for the training of a maximum of 25 trainees for Crawler Crane Operation NC III are as follows:

	TOOLS		EQUIPMENT	-	MATERIALS
QTY		QTY	And the second s	QTY	THE CE SHOULD COME SO
1 set	Wrenches (box and open-end_8-24 mm-metric & 7/16 -1" - English)	1 unit	Crawler crane with camera/monitor for reverse mode certified by Third Party accredited by DOLE-OSHC (Memorandum of Agreement (MOA)/ rental)	5 kgs.	Multi- purpose grease
5 pcs.	Hammer ballpeen (3-4 lbs.)	2 units	Two-way radio	20 liters	Engine oil (SAE 15w40)
5 pcs.	Pliers (mechanical 10 *)	1 unit	Vacuum cleaner (heavy duty)	20 liters	Hydraulic / steering fluid (TELLUS 68/10W)
5 pcs.	Adjustable wrench (8°,10°, 12°,18 °) 1 piece for each size	1 unit	Portable electric air compressor, 180 cfm	20 fiters	PTO / differential and transfer case drive (gear oil GP90 140)
2 pcs.	Grease gun (portable)	1 unit	High pressure	20	Automatic Trans-
-		-	washer, 150-250 psi	liters	mission oil (ATF)
5 pcs.	Screw driver	1 unit	Low-bed trailer	20	Manual transmission
5 pcs.	(10", flat) Screw driver	1 umit	(MOA / rental)	liters	oil GP 90/140
	(10°, Philips)	1 unit	Crawler Crane Simulator (Optional) Display (Screen, Monitor), Controls, Software and Hardware Components, Seat with Seatbelt, Power Supply (110-230 V 50-60Hz)	4 liters	Water coolant
5 pcs.	Putty knife	pcs	Safety Equipment/PPE (Safety vest, Gloves, Goggles, Dust mask, Hard Hat)	200 liters	Diesel fuel
5 pcs.	Pry bar (heavy duty)	5 pairs	Safety Equipment/PPE (Safety Shoes)	20 liters	Battery distilled water
5 pcs.	Nylon Taglines		(Journal Strees)	1 set	Primary &
	(16mm x 6m)				secondary air filter
2 pcs	Shackle (2 tons capacity)	and training and ordered growther and ordered growt		1 unit	Fire extinguisher
2 pcs.	Shackle (6.5 tons capacity)			1 unit	Test weights - 2 tons
2 pcs.	Shackle (8.5 tons capacity)			1 unit	Test weights - 4 tons
2 pcs.	(2 tons capacity)			1 pc.	Crawler crane miniature, (1:50 scale)
2 pcs.	Web sling (4 tons capacity)	1		1 pc	Operator's manual
2 pcs.	Chain sling (2 tons capacity)				with load chart
2 pcs.	Chain sling (4 tons capacity)	The state of the s		nappe and property	
pcs.	Wire rope sling (2 tons capacity)				
pcs.	Wire rope sling (4 tons capacity)				
	1 4 (OIIS Capacity)		•		
pcs.	Eye boit (4 tons) Turn buckle (4 tons)				

3.5 Training Facilities

The crawler carne operation workshop must be of concrete structure. Based on class size of 25 students/trainees the space requirements for the teaching/learning and circulation areas are as follows:

Space Requirement	Size in Meters	Area in Sq. Meters	Total Area in Sq. Meters
Student/Traine e Working Space	2 x 2m	4 sq. m. per student	100 sq. m.
Lecture Room	8 x 6m	48 sq. m.	48 sq. m.
Learning Resource Center	4 x 6m	24 sq.m.	24 sq.m.
Facilities/Equip ment/ Circulation Area			52 sq. m.
Total workshop area: 224 sq. m.			
Working Field	ng Field 0.25 hectare (MOA/Rental)		

Amendments

Based on a class intake of 25 students/ trainees

Space Requirement	Size in Meters	Area in Sq. Meters	Total Area in Sq. Meters
Student/Traine e Working Space (Maintenance Workshop)	2 x 2m	4 sq. m. per student	100 sq. m.
Lecture Room	8 x 6m	48 sq. m.	48 sq. m.
Learning Resource Center	4 x 6m	24 sq.m.	24 sq.m.
Facilities/Equip ment/ Circulation Area	6.5 x 8m	52 sq. m.	52 sq. m.
Working Field			1,500 sq.
То	op area:	1,724 sq. m.	

NOTE: Training Center may enter into Memorandum of Agreement (MOA) with industry for use of facilities and heavy equipment

3.6 Trainer's Qualifications

- Must be a holder of Heavy Equipment Operation (Crawler Crane) NC-II or equivalent qualification
- Must have undergone training on Training Methodology II (TM II) or equivalent training/experience
- Must be computer-literate
- Must be physically and mentally fit Must have at least 5 years job/industry experience*
- Must be a civil-service eligible (for government position or appropriate professional license issued by the Professional Regulatory Commission)
- * Optional. Only when required by the hiring institution.

Reference: TESDA Board Resolution No. 2004 03

2004 03
3.7 Institutional Assessment

Institutional assessment is undertaken by trainees to determine their achievement of units of competency.

- Holder of National TVET Trainer
 Certificate (NTTC) Level I in Heavy
 Equipment Operation (Crawler Crane)
 NC III
- Must have completed the 40-Hour Construction Occupational Safety and Health (COSH) per Department Order No. 13 s. 1998, Guidelines Governing Occupational Safety and Health in the Construction Industry conducted by OSHC and DOLE accredited Safety Training Organizations
- Must be computer-literate
- Must have had at least 5 years job/industry experience

NO Amendments

A certificate of achievement is issued for each unit of competency.

Existing Promulgated Training Regulations (Board Resolution No. 2007-20)

SECTION 4 National Assessment and Certification Arrangements

- 4.1 To attain the National Qualification of HEAVY
 EQUIPMENT OPERATION (Crawler
 Crane) NC II, the candidate must
 demonstrate competence in all the units of
 competency listed in Section 1. The
 successful candidate shall be awarded a
 National Certificate signed by the TESDA
 Director General.

 Competency Asses
 collecting evidence a
 whether competency h
 purpose of assessment
 individual can perform to
 at the workplace as expr
- 4.2 The qualification of HEAVY EQUIPMENT OPERATION (Crawler Crane) NC II may be attained through demonstration of competence in a project-type assessment covering the following core units. Candidate may apply for assessment in any accredited assessment center.

4.2.1 Crawler Crane Operation

- Perform pre-and post-operation for lifting equipment
- Perform productive operation for crawler crane
- Perform basic preventive maintenance servicing for lifting equipment
- 4.3 Assessment shall focus on the core units of competency. The basic and common units shall be integrated or assessed concurrently with the core units.
- 4.4 The following are qualified to apply for assessment and certification:
 - 4. 4.1 Graduates of formal, non-formal and informal institutions including enterprise-based training programs
 - 4.4.2 Experienced workers (wage employed or self employed)
- 4.5 The guidelines on assessment and certification are discussed in detail in the "Procedures Manual on Assessment and Certification" and "Guidelines on the Implementation of the Philippine TVET Qualification and Certification System (PTQCS)".

Amendments

Competency Assessment is the process of collecting evidence and making judgments whether competency has been achieved. The purpose of assessment is to confirm that an individual can perform to the standards expected at the workplace as expressed in relevant competency standards.

The assessment process is based on evidence or information gathered to prove achievement of competencies. The process may be applied to a full qualification or employable unit(s) of competency in partial fulfillment of the requirements of the national qualification.

4.1 NATIONAL ASSESSMENT AND CERTIFICATION ARRANGEMENTS

- 4.1.1 A National Certificate (NC) is issued when a candidate has demonstrated competence on all units of competency in a qualification with a promulgated Training Regulations.
- 4.1.2 Individuals wanting to be certified will have to be assessed in accordance with the requirements identified in the relevant unit/s of competency.
- 4.1.3 Assessment shall cover all the competencies of the qualification with the basic and common units integrated or assessed concurrently with the core units of competency.
- 4.1.4 The following are qualified to apply for assessment and certification:
 - Graduates of formal, non-formal and informal institutions and enterprisebased training programs
 - Experienced Workers (wage employed or self-employed)
- 4.1.5 For the renewal of valid or expired National Certificate (NC) under in Heavy Equipment Operation (Crawler Crane) NC II will have to undergo assessment in the amended TR for Heavy Equipment Operation (Crawler Crane) NC III.
- 4.1.6 Recognition of Prior Learning (RPL).

 Candidates who have gained competencies through informal training,

previous work or life experiences may apply for recognition in a particular

Existing Promulgated Training Regulations (Board Resolution No. 2007-20)	Amendments
	qualification through competency assessment.
	 4.1.7 The industry shall determine assessment and certification requirements for each qualification with promulgated Training Regulations: It includes the following: a. Entry requirements for candidates b. Evidence gathering methods c. Qualification requirements of competency assessors d. Specific assessment and certification arrangements as identified by industry
	4.2 COMPETENCY ASSESSMENT REQUISITE
	4.2.1 Self-Assessment Guide. The self-assessment guide (SAG) is accomplished by the candidate prior to actual competency assessment. SAG is a pre-assessment tool to help the candidate and the assessor determine what evidence is available, where gaps exist, including readiness for assessment.
	 This document can: a. Identify the candidate's skills and Knowledge b. Highlight gaps in candidate's skills and knowledge c. Provide critical guidance to the assessor and candidate on the evidence that need to be presented d. Assist the candidate to identify key areas in which practice is needed or additional information or skills that should be gained prior
	4.2.2 Accredited Assessment Center. Only Assessment Center accredited by TESDA is authorized to conduct competency assessment. Assessment centers undergo a quality assured procedure for accreditation before they are authorized by TESDA to manage the assessment for National Certification.

Existing Promulgated Training Regulations (Board Resolution No. 2007-20)	Amendments
	4.2.3 Accredited Competency Assessor. Only accredited competency assessor is authorized to conduct assessment of competence. Competency assessors undergo a quality assured system of accreditation procedure before they are authorized by TESDA to assess the competencies of candidates for National Certification.