

Republic of the Philippines  
**TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY**  
East Service Road, South Luzon Expressway, Taguig City

**130<sup>th</sup> TESDA BOARD MEETING**  
08 June 2021, Tuesday, 9:00 a.m.  
Teleconference Via Zoom Platform

**Resolution No. 2021 - 23**  
(Page 1 of 4 pages)

**APPROVING AND PROMULGATING THE AMENDED TRAINING REGULATIONS  
FOR RAC SERVICING (DomRAC) NC II**

**WHEREAS**, TESDA Board Resolution No. 2011-12 was issued on "Approving the Amendments to the Board Resolution No. 2005-04 on Approving and Promulgating the Training Regulations for RAC Servicing NC I" last 07 October 2011 during the 80<sup>th</sup> 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 and practices in the industry;

**WHEREAS**, the Refrigeration and Air-conditioning Technicians for Development of the Philippines (RACTAP) Inc. with the assistance of the Qualifications and Standards Office (QSO) of TESDA has reviewed the existing Training Regulations for RAC Servicing (DomRAC) NC II to respond to the current skills requirements of the industry with its new technologies and industry manpower set-up and recommended amendments;

**WHEREAS**, the industry experts and partners, headed by the officers of the Refrigeration and Air-conditioning Technicians for Development of the Philippines (RACTAP) Inc. with the technical assistance of the Qualifications and Standards Office (QSO) of TESDA endorsed the proposed revisions of the foregoing Training Regulations;

**WHEREAS**, during the 135<sup>th</sup> and 136<sup>th</sup> Standards Setting and Systems Development (SSSD) Committee Meetings held on 10 May 2021 and 02 June 2021, respectively, the Committee deliberated upon and agreed to favorably recommend the approval and promulgation of the Training Regulations for RAC Servicing (DomRAC) NC II which is attached as Annex "A" and made an integral part of this Resolution;

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**(Page 2 of 4 pages)**

**APPROVING AND PROMULGATING THE AMENDED TRAINING REGULATIONS  
FOR RAC SERVICING (DomRAC) NC II**

**WHEREAS**, during the 130<sup>th</sup> TESDA Board Meeting on 08 June 2021, the TESDA Board deliberated and considered the proposed Training Regulations for RAC Servicing (DomRAC) NC II;

**NOW, THEREFORE, BE IT RESOLVED AS IT IS HEREBY RESOLVED**, that the aforementioned Training Regulations for RAC Servicing (DomRAC) NC II as herein appended are hereby approved and promulgated;

**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 RAC Servicing (DomRAC) NC II must comply with the requirements of the abovementioned Training Regulations. The one-year period of re-registration under this 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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**APPROVING AND PROMULGATING THE AMENDED TRAINING REGULATIONS  
FOR RAC SERVICING (DomRAC) NC II**

Adopted this 8<sup>th</sup> day of June 2021.

  
**ATTY. JAN MICHAEL P JARO**  
Officer-In-Charge  
TESDA Board Secretariat

Attested by:

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

*(Original Signed)*  
**USEC. RAFAELITA M. ALDABA**  
Department of Trade and Industry

*(Original Signed)*  
**USEC. ARIEL T. CAYANAN**  
Department of Agriculture

Republic of the Philippines  
**TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY**  
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**APPROVING AND PROMULGATING THE AMENDED TRAINING REGULATIONS  
FOR RAC SERVICING (DomRAC) NC II**

*(Original Signed)*  
**USEC. SANCHO A. MABBORANG**  
Department of Science and Technology

*(Original Signed)*  
**MR. ISIDRO ANTONIO C. ASPER**  
Board Member, Labor Sector

*(Original Signed)*  
**DR. LEONIDA BAYANI-ORTIZ**  
Board Member, Employer Sector

*(Original Signed)*  
**PROF. RANDOLPH I. NONATO**  
Board Member, Employer Sector

*(Original Signed)*  
**MS. MARY G. NG**  
Board Member, Business & Investment  
Sector

*(Original Signed)*  
**MR. ARTURO M. MILAN**  
Board Member, Business & Investment  
Sector

*(Original Signed)*  
**FR. ONOFRE G. INOCENCIO JR., SDB**  
Board Member, Education and Training  
Sector

**AMENDMENT ON TRAINING REGULATIONS FOR  
RAC SERVICING (DOMRAC) NC II**

Existing Promulgated Training Regulations (Board Resolution No. 2011-0012)	Amendments
<b>Qualification Title</b>	
RAC Servicing (DomRAC) NC II	<ul style="list-style-type: none"> <li>• NO AMENDMENTS</li> </ul>
<b>Job Title</b>	
<ul style="list-style-type: none"> <li>• Domestic Refrigeration and Air-conditioning Technician</li> </ul>	<ul style="list-style-type: none"> <li>• NO AMENDMENTS</li> </ul>
<b>Section 1 - Definition of the Qualification</b>	
<p>The RAC SERVICING (DomRAC) NC II Qualification consists of competencies that a person must achieve to enable him/her to install, service, maintain, troubleshoot and repair domestic air-conditioning and refrigeration units.</p>	<p>The RAC SERVICING (DomRAC) NC II Qualification consists of competencies that a person must achieve to enable him/her to install, service, maintain, troubleshoot and repair domestic air-conditioning and refrigeration units. This qualification covers window-type air-conditioning and domestic refrigerators only.</p>
<b>Section 2- Competency Standards</b>	
<p><u>Basic Competencies</u></p> <ol style="list-style-type: none"> <li>1. Participate in workplace communication</li> <li>2. Work in team environment</li> <li>3. Practice career professionalism</li> <li>4. Practice occupational health and safety procedures</li> </ol>	<p><u>Basic Competencies</u></p> <ol style="list-style-type: none"> <li>1. Participate in workplace communication</li> <li>2. Work in team environment</li> <li>3. Solve/address general workplace problems</li> <li>4. Develop career and life decisions</li> <li>5. Contribute to workplace innovation</li> <li>6. Present relevant information</li> <li>7. Practice occupational safety and health policies and procedures</li> <li>8. Exercise efficient and effective sustainable practices in the workplace</li> <li>9. Practice entrepreneurial skills in the workplace</li> </ol>
<p><u>Common Competencies</u></p> <ol style="list-style-type: none"> <li>1. Prepare materials and tools</li> <li>2. Interpret technical drawing and plans</li> <li>3. Observe procedures, specifications and manuals of instructions</li> <li>4. Perform mensurations and calculations</li> <li>5. Perform basic benchworks</li> <li>6. Check basic electrical circuits</li> <li>7. Maintain tools, instruments and equipment</li> <li>8. Perform housekeeping and safety practices</li> <li>9. Document work accomplished</li> </ol>	<p><u>Common Competencies</u></p> <ul style="list-style-type: none"> <li>• NO AMENDMENTS</li> </ul>

Existing Promulgated Training Regulations (Board Resolution No. 2011-0012)	Amendments												
<p><b>Core Competencies</b></p> <ol style="list-style-type: none"> <li>1. Install domestic refrigeration and air-conditioning (DomRAC) units</li> <li>2. Service and maintain domestic refrigeration and air-conditioning (DomRAC) units</li> <li>3. Troubleshoot and repair domestic refrigeration and air-conditioning (DomRAC) units</li> </ol>	<p><b>Core Competencies</b></p> <ol style="list-style-type: none"> <li>1. Install domestic refrigeration and air-conditioning units</li> <li>2. Service and maintain domestic refrigeration and air-conditioning units</li> <li>3. Troubleshoot and repair domestic refrigeration and air-conditioning systems</li> </ol>												
<b>Section 3 - Training Standards</b>													
<b>3.1 Curriculum Design</b>													
<b>Nominal Training Duration</b>													
<table border="0"> <tr> <td>18 hrs – Basic Competencies</td> <td>37 hrs – Basic Competencies</td> </tr> <tr> <td>42 hrs – Common Competencies</td> <td>35 hrs – Common Competencies</td> </tr> <tr> <td>180 hrs – Core Competencies</td> <td>216 hrs – Core Competencies</td> </tr> <tr> <td><hr/>240 hrs - Total</td> <td><hr/>288 hrs - Total</td> </tr> <tr> <td>+ 240 hrs – Supervised-industry Learning (SIL)</td> <td>+ 240 hrs – Supervised-industry learning (SIL)*</td> </tr> <tr> <td><hr/>480 hrs. – Total training duration</td> <td><hr/>528 hrs. – Total training duration</td> </tr> </table>	18 hrs – Basic Competencies	37 hrs – Basic Competencies	42 hrs – Common Competencies	35 hrs – Common Competencies	180 hrs – Core Competencies	216 hrs – Core Competencies	<hr/> 240 hrs - Total	<hr/> 288 hrs - Total	+ 240 hrs – Supervised-industry Learning (SIL)	+ 240 hrs – Supervised-industry learning (SIL)*	<hr/> 480 hrs. – Total training duration	<hr/> 528 hrs. – Total training duration	<p>* SIL can be delivered thru Dual Training System (DTS)/Dualized Training Program (DTP) or Enterprise-based Training</p>
18 hrs – Basic Competencies	37 hrs – Basic Competencies												
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<hr/> 480 hrs. – Total training duration	<hr/> 528 hrs. – Total training duration												
<b>3.2 Training Delivery</b>													
<p>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.</p> <ul style="list-style-type: none"> <li>• The training is based on curriculum developed from the competency standards;</li> <li>• Learning is modular in its structure;</li> <li>• Training delivery is learner-centered and should accommodate individualized and self-paced learning strategies;</li> <li>• Training is based on work that must be performed;</li> <li>• Training materials are directly related to the competency standards and the curriculum modules;</li> <li>• Assessment is based in the collection of evidence of the performance of work to the industry required standard;</li> <li>• Training is based both on and off-the-job components;</li> <li>• Training program allows for recognition of prior learning (RPL) or current competencies;</li> <li>• Training allows for multiple entry and exit; and</li> <li>• Training programs are registered with the UTPRAS.</li> </ul>	<ol style="list-style-type: none"> <li>1. The delivery of training shall adhere to the design of the curriculum. Delivery shall be guided by the principles of competency-based TVET. <ul style="list-style-type: none"> <li>• 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)</li> <li>• Training delivery is learner-centered and should accommodate individualized and self-paced learning strategies;</li> <li>• Training can be done on an actual workplace setting, simulation of a workplace and/or through adoption of modern technology.</li> <li>• Assessment is based in the collection of evidence of the performance of work to the industry required standards;</li> <li>• 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.</li> <li>• Training program allows for recognition of prior learning (RPL) or current competencies; and</li> <li>• Training completion is based on satisfactory performance of all specified competencies.</li> </ul> </li> </ol>												

Existing Promulgated Training Regulations (Board Resolution No. 2011-0012)	Amendments
<p>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:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Modular/self-paced learning is a competency-based training modality wherein the trainee is allowed to progress at his own pace. The trainer only facilitates the training delivery.</li> <li>• Peer teaching/mentoring is a training modality wherein fast learners are given the opportunity to assist the slow learners.</li> <li>• 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.</li> <li>• 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.</li> <li>• Project-based instruction is an authentic instructional model or strategy in which students plan, implement and evaluate projects that have real world applications.</li> </ul>	<p>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:</p> <p><b>2.1. Institution- Based:</b></p> <ul style="list-style-type: none"> <li>• 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;</li> <li>• 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.</li> <li>• The classroom-based or in-center instruction may be enhanced through use of learner-centered methods as well as laboratory or field-work components.</li> </ul> <p><b>2.2. Enterprise-Based:</b></p> <ul style="list-style-type: none"> <li>• Formal Apprenticeship – Training within employment involving a contract between an apprentice and an enterprise on an approved apprenticeable occupation.</li> <li>• 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.</li> <li>• 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.</li> </ul>

Existing Promulgated Training Regulations (Board Resolution No. 2011-0012)	Amendments
	<p><b>2.3. Community-Based</b></p> <ul style="list-style-type: none"> <li>Community-Based is short term programs conducted by non-government organizations (NGOs), LGUs, training centers and other TVET providers which are intended to address the specific needs of a community. Such programs can be conducted in informal settings such as barangay hall, basketball courts, etc. These programs can also be mobile training program (MTP).</li> </ul>
<p><b>3.3 Trainee Entry Requirements</b></p>	
<p>This section specifies the qualifications of trainees and educational experience. Other requirements like health and physical requirements are also stated. Passing entry written examinations may also be indicated if necessary:</p> <ul style="list-style-type: none"> <li>Can communicate both oral and written</li> <li>Good moral character</li> <li>Can perform basic mathematical computation</li> <li>Physically and mentally fit</li> </ul>	<p>This section specifies the qualifications of trainees and educational experience. Other requirements like health and physical requirements are also stated. Passing entry written examinations may also be indicated if necessary:</p> <ul style="list-style-type: none"> <li>Must have completed at least 10 yrs. basic education or an alternative learning systems (ALS) certificate of completion with grade 10 equivalent holder</li> <li>Can communicate both oral and written</li> <li>Can perform basic mathematical computation</li> </ul>
<p><b>3.4 List of Tools, Equipment and Materials</b></p>	
<p>Recommended list of tools, equipment and materials for the training of 25 trainees for RAC Servicing NC II:</p>	<p>Recommended list of tools, equipment and materials for the training of 25 trainees for RAC Servicing (DomRAC) NC II.</p> <p>Up-to-date tools, materials, and equipment of equivalent functions can be used as alternatives. This also applies in consideration of community practices and their availability in the local market.</p>



TOOLS	
QTY.	DESCRIPTION
10 pcs	Flaring tool
10 pcs.	Swaging tool
5 pcs	Tube cutter
5 pcs	Tube bender
4 pcs.	Service cylinder 2.5 kg., 10 kg. capacity
10 pcs	Electrical pliers
10 pcs.	Pliers, long nose
10 pcs.	Screw driver, flat
10 pcs.	Screw driver Philips
10 pcs.	Files
5 sets.	Allen wrench
5 pcs.	Adjustable wrench 8", 10"
5 sets	Open wrench
5 sets	Box wrench
5 pcs.	Pipe wrench
5 pcs.	Vise grip , 6 , "8 "
5 pcs.	Thinners snip, 8"12"
10 pcs.	Bullpen hammer, 12 oz
5 pcs.	Rubber mallet ,oz
10 pcs.	Hack saw
5 pcs.	Spray gun
10 pcs.	Steel rule , metric & english
10 pcs.	Push rule
5 pcs.	Tri- square
8 pcs.	Pinch off tool
5 pcs.	Soldering iron, 100w , 220 volts

EQUIPMENT	
QTY.	ITEM
3 units	Vacuum pump motor, high stage, 1/2 HP , 220 volts
2 units	Recovery/ Recycling unit , portable type, 220 volts
2 units	Oxy- Acetylene welding machine w/ complete outfit
3 units	Reusable Service Cylinder 13.5kg
1 unit	Refrigerator , single door 5 cu. Ft. 220 volts
1 unit	Refrigerator, two door top mount freezer, 6 cu. Ft. 220 volts
1 unit	Refrigerator , two door no frost, 6 cu. Ft. 220 volts
1 unit	Freezer chest type, 10 cu Ft. 220 volts
1 unit	Freezer, upright 6 cu. Ft. 220 volts
1 unit	Water dispenser 220 volts
3 units	Analog Clampmeter
3 units	Digital Clampmeter
2 units	Window type aircon 2 hp 220 volts

TOOLS		
QTY.	UNIT	DESCRIPTION
10	sets	Flaring tool
10	sets	Swaging tool
10	pcs.	Tube cutter
2	pcs.	Tube bender (lever type), 5/8
3	pcs.	Tube bender (lever type), 1/2
3	pcs.	Tube bender (lever type), 5/16
3	pcs.	Tube bender (lever type), 3/8
3	pcs.	Tube bender (lever type), 1/4
3	sets	Tube bender (spring type)
2	pcs.	Service cylinder, 2.5 kg. capacity
2	pcs.	Service cylinder, 10 kg. capacity
10	pcs.	Electrical pliers
10	pcs.	Pliers, long nose
10	pcs.	Pliers, diagonal
10	pcs.	Capillary tube cutter
10	pcs.	Screw driver, flat
10	pcs.	Screw driver Philips
5	pcs.	Flat files, fine
3	sets	Allen wrench, metric
3	sets	Allen wrench, English
5	pcs.	Adjustable wrench 8"
5	pcs.	Adjustable wrench 10"
2	sets	Open wrench, metric
2	sets	Open wrench, English
2	sets	Box wrench
2	sets	Socket wrench
5	pcs.	Ratchet wrench (service valve)
5	pcs.	Vise grip, 8"
10	pcs.	Ballpein hammer, 8 oz
5	pcs.	Rubber mallet
10	pcs.	Hack saw, standard size
10	pcs.	Steel rule, metric & English, 12"
10	pcs.	Push rule, 15 meters
5	pcs.	L - square, 12"
10	pcs.	Pinch off tool
5	pcs.	Soldering iron, 100w , 220 volts
2	pcs.	Aviation snip, straight

EQUIPMENT		
QTY.	UNIT	DESCRIPTION
3	units	Vacuum pump motor, two stage, 1/2 HP , 220 volts
2	units	Recovery/ Recycling unit, portable type, 220 volts
2	sets	Oxy- Acetylene welding machine w/ complete outfit
3	units	Recovery Cylinder 20 kg
1	unit	Refrigerator , single door 5 cu. Ft. 220 volts

1 unit	Air compressor, complete w/ accessories 220 volts
5 units	Compressor motor 100 w , 220 volts
2 units	Electric drill portable, 3/8 1/2 , Chuck, 220 volts
1 set	Pedestal grinding machine, 6" grinding wheel 3/4 " hp. 220 volts
1 unit	Arc welding machine, Ac max. 250 amps. 220 V, 60 hz. Heavy duty
10 sets	Gauge manifold w/ hoses
5 sets	Digital Volt ohm mili- ammeter
5 sets	Analog VOM
1 set	Electronic leak detector (Fluorine based)
1 set	Electronic leak detector (Hydrocarbon based)
5 sets	Thermometer, dial type
5 sets	Digital Thermometer
1 set	Nitrogen regulator
2 units	Refractometer
2 units	Vacuumeter
1 unit	Refrigerant identifier
2 units	Weighing scale
<b>Personal Protective Equipment</b>	
15 pairs	Safety gloves
15 pairs	Safety shoes
15 pcs	Safety goggles/spectacles
15 pcs	Face mask

<b>MATERIALS</b>	
<b>Qty.</b>	<b>Description</b>
1 roll	Copper tube 1/4 " , 3/8", 5/16", 1/2, 1/8, 3/16, "OD, 50 ft. per roll
1 roll	Aluminum tube, 3/8 "OD, 100 ft. per roll
1 roll	Capillary tube 1/16, OD, 100 ft. per roll
50 pcs.	Silver rod
50 pcs.	Aluminum rod
10 pcs.	Silver flux
15 pcs.	Filter drier , 1/4 "OD flared connection
15 pcs.	Filter drier , 1/4 " OD solder connection
25 pcs.	Flare cap , 1/4" OD
25 pcs.	Flare union, 1/4 " OD
25 pcs.	Flare plug, 1/4 OD
13.6kg.	Refrigerant 134a
13.6kg.	Refrigerant 22
13.6 kgs	R 290
1 cyl.	Nitrogen gas
2 cyl.	Oxygen
2 cyl.	Acetylene gas

1	unit	Refrigerator , two door no frost, 6 cu. Ft. 220 volts
1	unit	Freezer chest type, 10 cu Ft. 220 volts
1	unit	Freezer, upright 6 cu. Ft. 220 volts
1	unit	Water dispenser 220 volts
5	units	Digital Clamp meter
2	units	Analog clamp meter
2	units	Window type aircon 1 hp 220 volts, non-inverter type
2	units	Window type aircon 1 hp 220 volts, inverter type
1	unit	Air compressor, complete w/ accessories 220 volts, 60 Hz
5	units	Compressor motor 100 watts, 220 volts, 60 Hz
2	units	Electric drill portable, 3/8, 220 volts, 60 Hz
1	unit	Pedestal grinding machine, 220 volts, 60 Hz
2	units	Portable grinding machine, 220 volts, 60 Hz
3	units	Air blower (portable), 220 volts, 60 Hz
1	unit	Arc welding machine, AC max. 50 amps. 220 V, 60 Hz
5	sets	Gauge manifold and hoses w/ ball valves, R-410A / R-32
5	sets	Gauge manifold and hoses w/ ball valves, R-22 / R-134a
10	units	Digital Volt ohm milli-ammeter
1	unit	Electronic leak detector (Fluorine based)
1	unit	Electronic leak detector (Hydrocarbon based)
10	units	Digital Thermometer
1	set	Nitrogen regulator
2	units	Vacuum meter
1	unit	Refrigerant identifier
2	units	Weighing scale, digital
<b>Personal Protective Equipment</b>		
15	pairs	Hard hat
15	pairs	Safety gloves
15	pairs	Safety shoes
15	pcs.	Safety goggles/spectacles
15	pcs.	Face mask
15	pcs.	Gas mask

<b>MATERIALS</b>		
<b>QTY.</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
1	roll	Copper tube 1/4 " , 3/8", 5/16", 1/2, 1/8, 3/16, "OD, 50 ft. per roll

Existing Promulgated Training Regulations (Board Resolution No. 2011-0012)		Amendments		
10 pcs.	Dual capacitor 25, 30, 35 mfd 370 vac	1	roll	Aluminum tube, 3/8 "OD, 100 ft. per roll
10 pcs.	Fan capacitor ,3, 4, 5, 6, 7, mfd 220 vac	1	roll	Capillary tube 1/16, OD, 100 ft. per roll
10 pcs.	Starting capacitor 60, 80, 100-105 mfd 220 volts	50	pcs.	Silver rod
10 pcs.	Potential relay 1, 1.5 2 hp 220 volts	50	pcs.	Aluminum rod
10 pcs.	Overload protector 1/6 ,1/8, 1/10 , 1/5, 1.5 2hp 220 volts	10	pcs.	Silver flux
10 pcs.	Current relay 1/5, 1/6, 1/8 , 1/10, hp 220 volts	15	pcs.	Filter drier, ¼ "OD flared connection
10 pcs.	Evaporator coil	15	pcs.	Filter drier, ¼ " OD solder connection
10 pcs.	Condenser	25	pcs.	Flare cap, ¼ " OD
5 pcs,	Soldering lead	25	pcs.	Flare union, ¼ " OD
5 pcs.	Soldering paste	25	pcs.	Flare plug, ¼ "OD
<b>Tools/equipment for Conversion</b>		13.6	kg.	Refrigerant 134a
1 set	Insulated terminal connectors/rings	13.6	kg.	Refrigerant 22
5 pcs	Sealed terminal box	13.6	kgs	R-410A
5 sets	Screwed cable glands (various sizes)	3	kgs	R-32
2 rolls	Flexible electric cable (# 12 & # 14)	3	kgs	R-600a
2 sets	Cable strap for wiring harness	1	cyl	Nitrogen gas
5 rolls	Rubber electrical tape	2	cyl	Oxygen
1 booklet	Label and warning sign sticker	2	cyl	Acetylene gas
		10	pcs.	Dual capacitor 25, 30, 35 mfd 370 vac
		10	pcs.	Fan capacitor ,3, 4, 5, 6, 7, mfd 220 vac
		10	pcs.	Starting capacitor 60, 80, 100-105 mfd 220 volts
		10	pcs.	Potential relay 1, 1.5 2 hp 220 volts
		10	pcs.	Overload protector 1/6 ,1/8, 1/10 , 1/5, 1.5 2hp 220 volts
		10	pcs.	Current relay 1/5, 1/6, 1/8 , 1/10, hp 220 volts
		1	roll	Soldering lead
<b>3.5 Training Facilities</b>				

Existing Promulgated Training Regulations (Board Resolution No. 2011-0012)				Amendments				
Based on a class intake of 25 students/trainees:				Based on a class intake of 25 students/ trainees:				
SPACE REQUIRMENTS	SPACE IN METERS	AREA IN SQ. METERS	TOTAL AREA IN SQ. METERS	TEACHING/ LEARNING AREAS	SIZE IN METERS	AREA IN SQ. METERS	QTY	TOTAL AREA IN SQ. M
Lecture Area*	4 x 8	32	32	A. LECTURE AREA*	6 x 8	48	1	48
Learning Resource Area	4 x 6	24	24	B. WORKSHOP AREA	6 x10	60	1	60
Workshop	6 x 10	60	60	C. LEARNING RESOURCE AREA	4 x 4	16	1	16
Tool/Storage Area*	4 x 4	16	16	D. TOOL/ STORAGE AREA*	3 x 4	12	1	12
Wash, Toilet & Locker Room*	3 x 4	12	12	E. WASH, TOILET AND LOCKER ROOM*	3 x 4	12	1	12
<b>Total</b>			<b>144</b>	<b>Total</b>				<b>148</b>
Facilities / Equipment / Circulation <i>(Area requirement is equivalent to 30% of the total teaching/learning areas)</i>			<b>44</b>	F. Facilities / Equipment / Circulation <i>(Area requirement is equivalent to 30% of the total teaching/learning areas)</i>				<b>45</b>
<b>Total Area</b>			<b>188</b>	<b>Total Area</b>				<b>193</b>
*Common facilities for all HVAC/R Courses				*Common facilities for all HVAC/R Courses Subject to conformity of the health and safety protocols				
<b>3.6 Trainer's Qualifications</b>								
<b>RAC Servicing NC II</b>				<b>RAC Servicing (DomRAC) NC II</b>				
<ul style="list-style-type: none"> <li>• Holder of National TVET Trainers Certificate Level I</li> <li>• He must be a holder of RAC Servicing, NC II</li> <li>• Good moral character</li> <li>• Must be physically and mentally fit</li> <li>• Must be computer literate</li> <li>• *Must have at least two (2) years job/industry experience</li> </ul>				<ul style="list-style-type: none"> <li>• Holder of National TVET Trainers Certificate (NTTC) Level I in RAC Servicing (DomRAC) NC II or Commercial Air-conditioning Installation and Servicing NC III / Commercial Refrigeration Installation and Servicing NC III or graduate of BSIE/BTTE/BTVTEd - Major in RAC and with RAC Servicing (DomRAC) NC II or Commercial Air-conditioning Installation and Servicing NC III / Commercial Refrigeration Installation and Servicing NC III certificate</li> <li>• Must be computer literate</li> <li>• Must have at least two (2) years related industry experience within the past 5 years</li> </ul>				
*Optional: Only when required by the hiring institution Reference: TESDA Board Resolution No. 2004-03								
<b>3.7 Institutional Assessment</b>								

Existing Promulgated Training Regulations (Board Resolution No. 2011-0012)	Amendments
<p>Institutional assessment is undertaken by trainees to determine their achievement of units of competency. A certificate of achievement is issued for each unit of competency.</p> <p>As a matter of policy, graduates of programs registered with TESDA under these training regulations are required to undergo mandatory national competency assessment upon completion of the program.</p>	<p>Institutional Assessment is gathering of evidences to determine the achievements of the requirements of the qualification to enable the trainer make judgement whether the trainee is competent or not competent.</p>
<b>Section 4. National Assessment and Certification Arrangements</b>	
<p>4.1 To attain the National Qualification of <b>RAC Servicing NC II</b>, the candidate must demonstrate competency in all the units listed in Section 1. Successful candidates shall be awarded a <b>National Certificate III</b> signed by the TESDA Director General.</p> <p>4.2 The qualification <b>RAC Servicing NC II</b> may be attained through:</p> <p>4.2.1 Demonstration of competence through project-type assessment covering all required units of the qualification:</p>	<p>4.1 To attain the National Qualification of <b>RAC Servicing (DomRAC) NC II</b>, the candidate must demonstrate competency in all the units listed in Section 1. Successful candidates shall be awarded a <b>National Certificate III</b> signed by the TESDA Director General.</p> <p>4.2 The qualification <b>RAC Servicing (DomRAC) NC II</b> may be attained through demonstration of competence through a single comprehensive project-type assessment covering all required units of competency of this qualification.</p> <p>4.3 Assessment shall cover all competencies, with basic and common integrated or assessed concurrently with the core units of competency.</p>

Existing Promulgated Training Regulations (Board Resolution No. 2011-0012)	Amendments
<p>4.2.2 For individuals, who are holders of National Certificate of RAC Servicing NC I shall be converted to RAC Servicing NC II. Holders of Certificate of Competency (COC) along RAC Servicing NC I will be required to undertake the required competencies through training or assessment for RAC Servicing NC II:</p> <p>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.</p> <p>One or two additional evidences in the form of Portfolio, Third Party Report, Written Test and Demonstration with Questioning may be required by the assessor in addition to those specified in the Methods of Assessment in the Competency Standards, depending on the need for supplementary evidences.</p> <p>4.4 The following are qualified to apply for assessment and certification:</p> <p>4.4.1 Graduate of formal, non-formal and informal including enterprise-based training programs</p> <p>4.4.2 Experienced workers (wage employed or self-employed)</p> <p>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)".</p>	<p>4.4 Any of the following are qualified to apply for assessment and certification:</p> <p>4.4.1. Graduate of formal, non-formal and informal including enterprise-based training programs</p> <p>4.4.2. Experienced workers in RAC servicing for at least 2 years (wage employed or self-employed)</p> <p>4.5 <b>Recognition of Prior Learning (RPL).</b> Candidates who have gained competencies through previous work or life experiences, education, and informal training related to all the core competencies may apply for recognition in the qualification through Portfolio Assessment in accordance with the provision of <b>TESDA Circular No. 59, Series of 2020.</b></p> <p>4.6 The existing National Certificate (NC) of individuals in <b>RAC Servicing (DomRAC) NC II</b> shall be in effect until the said NC have expired. Individuals are advised to take the assessment for this amended/updated TR on or before the expiration of such certificates.</p> <p>4.7 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 Competency Assessment and Certification System (PTCACS)".</p>