

OCCUPATIONAL PROFILE FOR INDUSTRIAL ELECTRICIAN

Workers Behaviour		General Knowledge and Skills	
<ul style="list-style-type: none"> • Cautious • Cheerful • Creative • Determined • Disciplined • Energetic • Flexible • Honest • Hard working • Leadership • Obedient • Open minded • Patient • Punctual • Responsible • Sincere 		<ol style="list-style-type: none"> 1. Basic drawings 2. Basic electricity 3. Basic signs and symbols 4. Communication skills 5. Computer skills 6. Drawing skills 7. Fire extinguisher operation 8. First aid 9. Labour and employment act 10. Measuring instruments 11. Meter reading 12. Power distribution 13. Public relation skills 14. Safety gear 15. Simple calculations 16. Spare / product 17. Technology 18. Tools and equipment 	
TOOLS AND EQUIPMENT		CONCERNS AND FUTURE TRENDS	
<ul style="list-style-type: none"> • Adustable wrench • Clamp meter • Combination plier • Crimping tools • Hacksaw • Halogen lamp • Hammer • Hydro meter • Knife • Mallet • Measuring tape • Megger • Multimeter • Screw driver • Soldering iron • Spanner • Tachometer • Tester 	<ul style="list-style-type: none"> • Allen keys • Bearing puller • Bench vice • Blower • Centre punch • Chisel • Feeler gauge • File • Blow lamp • Hand drill machine • Infra red gun • Ladder • Safety gear • Series test lamp • Sound detector • Spirit level • Testing lamp • Torch 	<ul style="list-style-type: none"> • Computerization • Further training • New technology 	

Endorsed by Technical Advisory Committee (TAC) for Manufacturing sector (TAC - MS) on 19th June 2007
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Occupational Profile for INDUSTRIAL ELECTRICIAN Level 2

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Royal Government of Bhutan

Produced for

**Training Providers, Employers, Employees,
Trainees and Interested General Public.**

Developed by

**Department of Occupational Standards
Ministry of Labour and Human Resources
Thimphu**

17 - 18 March 2006

ISCO - 88 Code: 7137
DOS Code: OP - 020

INDUSTRIAL ELECTRICIAN : Duties & Tasks

17 - 18 March 2006

Duties		Tasks										
A	Ensure safety practices	A1 Wear safety gear	A2 Display danger sign board	A3 Keep first aid box	A4 Clean and dry workplace	A5 Arrange tools and equipment	A6 Use climbing device	A7 Read instructions and symbols	A8 Communicate with s co-worker	A9 Dispose scraps	A10 Maintain plant lighting	A11 Maintain tools and equipment
B	Maintain motor feeder	B1 Repair main / back-up switches	B2 Replace main/ back-up switches	B3 Replace fuses	B4 Repair contactor	B5 Replace contactor	B6 Replace overload relay	B7 Replace MCB (Main Circuit breaker)	B8 Replace feeder terminals	B9 Tighten feeder terminals		
C	Maintain induction motor	C1 Disconnect motor	C2 Dismantle motor	C3 Service terminals	C4 Clean motor with blower	C5 Lubricate bearings	C6 Varnish windings	C7 Remove moisture using halogen lamp	C8 Re-assemble motor	C9 Test functioning of motor		
D	Maintain circuit breaker (MOCB, ACB, VCB, SF ₆) ¹	D1 Replace oil (MOCB)	D2 Replace contact clamp	D3 Replace fixed/ moving contact	D4 Adjust PT (Potential Transformer) contact	D5 Replace tripping / closing coils	D6 Adjust charging spring	D7 Lubricate mechanism to store	D8 Replace spring charging motor	D9 Test control circuit		
E	Maintain step-down transformer	E1 Isolate circuit breaker	E2 Connect earth switch	E3 Replace silica gel	E4 Replace diverter switch	E5 Clean cooling fins	E6 Top-up / replace oil	E7 Overhaul OLTC (On Load Tap Changer)	E8 Replace transformer coil for winding	E9 Replace gasket	E10 Tighten bushing	
F	Maintain vibrating feeder	F1 Adjust core gap*	F2 Isolate coil*	F3 Replace feeder nuts and bolts	F4 Replace coil*	F5 Replace feeder cover*	F6 Test vibration*					
G	Maintain battery bank	G1 Measure output voltage	G2 Check specific gravity	G3 Top-up with distilled water	G4 Clean battery terminals equipment	G5 Tighten terminals	G6 Replace battery	G7 Charge battery				
H	Carry out cable jointing	H1 Connect straight through joints	H2 Connect T-joint	H3 Connect married joint	H4 Connect end terminal joint	H5 Solder joints	H6 Insulate joints	H7 Test joints for continuity	H8 Test megger value of cable joint			
I	Carry out wiring	I1 Prepare layout drawing	I2 Estimate materials requirements	I3 Mark fixture points	I4 Drill holes	I5 Layout pipe / PVC / casing and capping	I6 Insert / lay wire	I7 Fix fixtures fittings	I8 Make connections	I9 Install earthing	I10 Test installations	
J	Upgrade skills and knowledge	J1 Identify training needs	J2 Refer books and manuals	J3 Share ideas with co-workers	J4 Attend training / workshop	J5 Familiarize with new tools and equipment	J6 Under take study tours / visits	J7 Seek advice from seniors				
K	Maintain records / log books	K1 Record complaints	K2 Record meter readings	K3 Write remarks / instructions	K4 Fill requisition form	K5 Fill daily report	K6 Fill-up indent form	K7 Record test report	K8 Maintain / record materials consumption	K9 Record shut down information	K10 Sign shift handing taking over list	

* applicable only to PCA, BFAL, BCCL, BBPL

1 - Minimum Oil Circuit Breaker, Air Circuit Breaker, Vacuum Circuit Breaker, Sulphur Hexafluoride