

Training Calendar 2026-2027



North-West Power Generation Company Limited
ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified
(An Enterprise of Bangladesh Power Development Board)
UTC Building (Level-3 &4), 8 Panthapath, Kawranbazar, Dhaka-1215, Bangladesh

Summary of Training of NWPGCL

Total Employees	876
Required Training Hours (Per Man Hour)	50
Total Required Training Hours (876*50)	43,800
Total Training Program	72
Total Course	61
Total Training Days	216
Training Hours to be conducted by CPD Program	10,512
Training Hours to be conducted by Course Based Program	43,328
Targeted total Training Hours (In-House)	53,840
Targeted Training Hours from External Organizations	2672
Total Targeted Training Hour=	56,512
Targeted Per Man Hour=	64

Office-wise Overview Training Calendar 2026-27

S L	Office Name	Total Contractual Employees			Total Required Training Hours (50 Man Hours*Total Employees)	Targeted Training Hours		
		Officer	Staff	Total		CPD (On the Job)	Course Based (In-House)	Total Targeted Training Hour
1	Corporate Office	73	65	138	1656	1656	19848	21504
2	Sirajganj Power Station	166	158	324	3888	3888	9680	13568
3	Khulna 225 MW CCPP	53	74	127	6350	1524	5440	6964
4	Bheramara 410 MW CCPP	62	97	159	7950	1908	5840	7748
5	Madhumoti 100 MW HFO PP	26	46	72	3600	864	2520	3384
6	Rupsha 800 MW CCPP	35	21	56	2800	672	0	672
Total CPD+Course based=		415	461	876	43800	10512	43328	53,840
Other organization								2672
Total Achievable Training Hours								56,512
Achievable Per Man Hour=								64

TRAINING SCHEDULE
FOR
CORPORATE OFFICE, NWPGL, DHAKA
FY-2026-27

Training Schedule of Corporate Office

Sl.	Course Code	Name of the Topic	Target Group	Days	No. of Participants	Expected Training Hour	Place	Mode of Training
July-2026								
1.	IH-CB-0044	Public Procurement Act and Rules	Officer	5	25	1000	Corporate Office	Physical
2.	IH-CB-0045	Utility-Scale and Rooftop Solar Plant Design Using PVsyst	Technical Officers	3	25	600	Corporate Office	Physical
August-2026								
3.	IH-CB-0040	কর্মক্ষেত্রে আচরণ, পেশাদারিত্ব, শিষ্টাচার ও নৈতিকতা	সকল কর্মচারী	2	25	400	Corporate Office	Physical
4.	IH-CB-0010	Finance for Non-Finance Professionals	Non-Finance Officers	2	25	400	Corporate Office	Physical
5.	IH-CB-0047	Public Sector Project Management, DPP Preparation and Approval including PPS & other software.	Technical and Finance Officers	5	25	1000	Corporate Office	Physical
September-2026								
6.	IH-CB-0039	Professional Training on Bangladesh Labour Act, Rules and Disciplinary Procedures	Officers	3	25	600	Corporate Office	Physical
7.	IH-CB-0073	Public Private Partnership: Inception to Implementation	Officers	3	25	600	Corporate Office	Physical
8.	IH-CB-0034	Basic Thermodynamics in Power Generation with Practical Applications	Technical Officers	5	25	1000	Power Plant	Physical
October-2026								
9.	IH-CB-0041	Power Sector Project Financing including Financial Modelling	Technical and A & F Officers	4	25	800	Corporate Office	Physical
10.	IH-CB-0038	Energy Efficiency, Conservation and Energy Auditing for Power Plants.	Technical Officers	4	25	800	Corporate Office + One Day Hands on in Power Plant	Physical
11.	IH-CB-0020	ড্রাইভিং কলাকৌশল ও সড়ক আইন	ড্রাইভার	2	25	400	Corporate Office	Physical
November-2026								
12.	IH-CB-0042	Comprehensive Methodology for Project Feasibility Assessment	Technical and A & F Officers	3	25	600	Corporate Office	Physical
13.	IH-CB-0043	FGMO, AGC and SCADA Applications in Power Plants	XEN/SDE/AE	4	25	800	Corporate Office + Field Tour at PGB PLC	Physical
14.	IH-CB-0026	Employee Service Rules Including Delegation of Administrative Power	Officers	3	25	600	Corporate Office	Physical
December-2026								
15.	IH-CB-0046	Advanced MS Office Applications	All Officers	2	25	400	Corporate Office	Physical

16.	IH-CB-0025	AI-Powered Productivity for Professional Excellence	Officers	2	25	400	Corporate Office	Physical
17.	IH - CB-0002	Leadership and Organizational Development	SDE/DM to Manager/XEN	2	27	432	Payra	Physical
January-2027								
18.	IH-CB-0035	Contract Management (NCT)	Officer	2	25	400	Corporate Office	Physical
19.	IH-CB-0050	Strategic Leadership for organizational Planning and Management	SE/DGM and Above	2	31	496	Cox's Bazar/ Sylhet	Physical
20.	IH-CB-0019	কর্মক্ষেত্রে ছুটি, সুবিধাদি, শৃঙ্খলা ও শান্তি	Staffs	2	25	400	Corporate Office	Physical
February-2027								
21.	IH-CB-0036	International Financial Reporting Standards (IFRS) & International Accounting Standards (IAS)	Officers of Accounts and Finance Cadre	5	25	1000	Corporate Office	Physical
22.	IH-CB-0037	PPA Structures, Tariff Models, Billing Mechanisms & Fuel Supply Contracts for different types of Power Plants	Technical and A & F Officers	4	25	800	Corporate Office	Physical
March-2027								
23.	IH-CB-0048	ফায়ার সেফটি, জরুরি সাড়া (Emergency Response Plan) প্রদান ও কর্মক্ষেত্রে নিরাপত্তা (Workplace Safety) ব্যবস্থাপনা	সকল কর্মচারী	2	25	400	Corporate Office	Physical
24.	IH-CB-0049	Planning, Monitoring and Control of Project & Specialized Maintenance of Plants using MS Project	Technical and Finance Officers	3	25	600	Corporate Office	Physical
April-2027								
25.	IH-CB-0051	Power Sector Overview, Generation Technologies, Fuel Choice & Sourcing, Transition Pathway in Bangladesh	Non-Technical Officers	3	25	600	Power Plant	Physical
26.	IH-CB-0055	Tender Document Preparation (National and International)	Officer	3	25	600	Corporate Office	Physical
27.	IH-CB-0052	Strategic Human Resource Management and Organizational Development	Manager/XEN and above	3	25	600	Corporate Office	Physical
May-2027								
28.	IH-CB-0053	অফিস সহায়তা কার্যক্রম ও ব্যবস্থাপনা	অফিস সহকারী/হিসাব সহকারী	2	25	400	Corporate Office	Physical
29.	IH-CB-0054	Power Sector related Policies and Guidelines (Master Plan, SDG, NDC-3, RE Policy, Electricity Act, etc.)	Officers	3	25	600	Corporate Office	Physical
30.	IH-CB-0057	Professional Excellence in Office Management, Stress Management	Officers	2	25	400	Corporate Office	Physical
June-2027								
31.	IH-CB-0056	Training on Letter of Credit (LC) and its application, Insurance & Customs Clearance	Officer	3	25	600	Corporate Office	Physical
32.	IH-CB-0058	Induction Training	Newly Recruited Officers & Staffs	7	20	1120	Corporate Office + Plant Visit	Physical

N.B At least one (01) CPD session will be arranged every month by each department.
Each CPD session will be 2 (two) hours long.

Summary of Training of Corporate Office

Total Employee	138
Total Training Program	32
Total Days	100
Total Expected Participants	503
Targeted Training Hours by CPD (On the Job)	1656
Total Expected Hour by Course Based Training	19848
Total Expected Hour by Course Based Training and CPD	21504

TRAINING SCHEDULE
FOR
SIRAJGANJ POWER STATION, NWPGL, SIRAJGANJ
FY-2026-27

Training Schedule of SIRAJGANJ Power Station

SL.	Course Code	Name of the Topic	Target Group	Days	No. of Participants	Expected Training Hour	Place	Mode of Training
July-2026								
01	IH-CB-0030	Common Job Rules & Regulation and Expected OB	Staff	3	30	720	Sirajganj Power Station	Physical
02	IH-CB-0020	আধুনিক ড্রাইভিং কলাকৌশল ও সড়ক আইন	Drivers	2	20	320	Sirajganj Power Station	Physical
August-2026								
03	IH-CB-0021	যান্ত্রিক রক্ষণাবেক্ষণ ও নিরাপত্তা	Technical Staffs of MMD /EMD/I&C	3	30	720	Sirajganj Power Station	Physical
September-2026								
04	IH-CB-0028	Basic Training on First Aid	First Aider & Officer/ Staffs	3	30	720	Sirajganj Power Station	Physical
05	IH-CB-0029	Public Procurement Rules (2025)	CE/SE/XEN	3	20	480	Sirajganj Power Station	Physical
October-2026								
06	IH-CB-0059	Electrical System Troubleshooting & Case Study Analysis in Power Plants	XEN/SDE/AE of EMD/I&C/Operation	3	30	720	Sirajganj Power Station	Physical
07	IH-CB-0060	Contingency Plan of Plant Operation	Officers of Operation	3	30	720	Sirajganj Power Station	Physical
November-2026								
08	IH-CB-0061	Instrumentation & Control Systems in Power Plant	Officers & Staffs of I&C	3	20	480	Sirajganj Power Station	Physical
December-2026								
09	IH-CB-0019	কর্মক্ষেত্রে পেশাদারিত্ব, ছুটি, সুবিধাদি, শৃঙ্খলা ও শান্তি	সকল স্তরের কর্মচারী।	3	30	720	Sirajganj Power Station	Physical
10	IH-CB-0012	Mechanical Maintenance Training level-01	SAE / AE / SDE / of MMD /EMD/I&C	3	30	720	Sirajganj Power Station	Physical
January-2027								
11	IH-CB-0062	Essential Management Skill Training	Officers	3	30	720	Sirajganj Power Station	Physical
12	IH-CB-0030	Common Job Rules & Regulation and Expected OB	Staff	3	30	720	Sirajganj Power Station	Physical
February-2027								
13	IH-CB-0032	Fundamentals of Electrical Systems and Equipment Operation.	Technical Staffs of EMD/I&C/Operation	3	30	720	Sirajganj Power Station	Physical
March-2027								
14	IH-CB-0010	Finance for Non-Finance Professionals	Officers	2	30	480	Sirajganj Power Station	Physical
April-2027								
15	IH-CB-0060	Contingency Plan of Plant Operation	Staffs	3	30	720	Sirajganj Power Station	Physical

N. B At least one (01) CPD session will be arranged every month by each department. Each CPD session will be 2 (two) hours long.

Summary of Training of Sirajgang Power Station

Total Employee	324
Total Required Training Hours (324*50)	16200
Total Training Program	15
Total Days	43
Total Participants	420
Targeted Training Hours by CPD (On the Job)	3888
Total Expected Hour by Course Based Training	9680
Total Expected Hour by Course Based Training and CPD	13568

TRAINING SCHEDULE
FOR
KHULNA 225 MW CCPP, NWPGL, KHULNA
FY-2026-27

Training Schedule of KHULNA 225 MW CCPP

Sl.	Course Code	Name of the Topic	Target Group	Days	No. of participants	Expected Training Hour	Place	Mode of Training
July-2026								
1.	IH-CB-0061	Occupational Health, Safety & ISO Management	Officers and Staffs	2	25	400	Khulna 225 MW CCPP	Physical
August-2026								
2.	IH-CB-0005	Instrumentation & Control Systems Systems Level 01	Technical Officers and Staffs (For E, EEE & CSE)	3	25		Khulna 225 MW CCPP	Physical
September-2026								
3.	IH-CB-0020	নিরাপদ ড্রাইভিং, সড়ক নিরাপত্তা ও ভেহিকল ফল্ট ডায়াগনসিস প্রশিক্ষণ	Drivers	2	20	320	Khulna 225 MW CCPP	Physical
October-2026								
4.	IH-CB-0073	Training On Corrosion Prevention, (Cathodic Protection, Painting, Preservation Etc.)	Technical Officers & Staff	3	25	600	Khulna 225 MW CCPP	Physical
November-2026								
5.	IH-CB-0074	Practical Generator & Transformer Protection and Coordination	Technical Officers of EMD	3	25	600	Khulna 225 MW CCPP	Physical
January-2027								
6.	IH-CB-0075	GT, ST & HRSG Preservation Procedure	Officers of operation	2	30	480	Khulna 225 MW CCPP	Physical
February-2027								
7.	IH-CB-0061	Occupational Health, Safety & ISO Management Training	Technical Officers & Staffs	2	25	400	Khulna 225 MW CCPP	Physical
March-2027								
8.	IH-CB-0076	Steam Turbine & HRSG Start-Up, Operation, Shutdown & Trip Handling	Officers of Operation	2	30	480	Khulna 225 MW CCPP	Physical
April-2027								
9.	IH-CB-0077	Training course on Valves: Types, Construction, Maintenance & Overhauling	Officers & Staff from MMD & Operation	3	25	600	Khulna 225 MW CCPP	Physical
May-2027								
10.	IH-CB-0078	কর্মক্ষেত্রে পেশাদারিত্ব, ছুটি, সুবিধাদি, শৃঙ্খলা ও শান্তি	All Staff	3	40	960	Khulna 225 MW CCPP	Physical

N. B At least one (01) CPD session will be arranged every month by each department.
Each CPD session will be 2 (two) hours long.

Summary of Training of Khulna

Total Employee	127
Total Required Training Hours (127*50)	6350
Total Training Program	8
Total Days	22
Total Participants	150
Targeted Training Hours by CPD (On the Job)	1524
Total Expected Hour by Course Based Training	5440
Total Expected Hour by Course Based Training and CPD	6964

TRAINING SCHEDULE
FOR
BHERAMARA 410 MW CCPP, NWPGL, KUSTIA
FY-2026-27

Training Schedule of BHERAMARA 410 MW CCPP

Sl .	Course Code	Name of the Topic	Target Group	Days	No. of Participants	Expected Training Hour	Place	Mode of Training
July-2026								
1	IH-CB-0063	Gas Turbine Maintenance, Vibration Management & Power Plant Reliability.	XEN/SDE/AE	3	20	480	BCCPP	Physical
2	IH-CB-0064	Fundamentals of Combined Cycle Power Plant Operation	Technical staffs	5	20	800	BCCPP	Physical
August-2026								
3	IH-CB-0065	Good Governance, Leadership, Team Building and Corruption Prevention in Workplace.	Officers	2	20	320	BCCPP	Physical
4	IH-CB-0066	Fundamentals of Combined Cycle Power Plant Maintenance	Technical staffs	3	20	480	BCCPP	Physical
September-2026								
5	IH-CB-0067	Operation & Maintenance of Combined Cycle Power Plant	Technical Officers	4	20	640	BCCPP	Physical
6	IH-CB-0028	Basic Training on First Aid	Staffs	3	25	600	BCCPP	Physical
October-2026								
7	IH-CB-0068	NWPGCL Service rules, Labour Law 2006, and Government Service Rules	Officers	4	20	640	BCCPP	Physical
December-2026								
8	IH-CB-0069	কেপিআই নিরাপত্তা ব্যবস্থাপনা	Security staffs	3	20	480	BCCPP	Physical
January-2027								
9	IH-CB-0028	Basic Course on First Aid	Staffs	3	25	600	BCCPP	Physical
February-2027								
10	IH-CB-0070	Modern Office Management	OA/JAM/SAE	5	20	800	BCCPP	Physical

N. B Atleast one (01) CPD session will be arranged every month by each department.
Each CPD session will be 2 (two) hours long.

Summary of Training of Bheramara

Total Employee	159
Total Required Training Hours (159*50)	7950
Total Training Program	10
Total Days	35
Total Participants	210
Targeted Training Hours by CPD (On the Job)	1908
Total Expected Hour by Course Based Training	5840
Total Expected Hour by Course Based Training and CPD	7748

TRAINING SCHEDULE
FOR
MADHUMATI 100 MW HFO BASED POWER PLANT,
NWPGCL, MADHUMATI
FY-2026-27

Madhumati 100 MW HFO BASED Power Plant

Sl .	Course Code	Name of the Topic	Target Group	Days	No. of Participants	Expected Training Hour	Place	Mode of Training
September-2026								
1	IH-CB-0019	প্রাতিষ্ঠানিক আচরণ, ছুটি ও সুবিধাদি ব্যবস্থাপনা, শৃঙ্খলা এবং প্রশাসনিক ব্যবস্থা	কর্মকর্তা/ কর্মচারী	3	25	600	Madhumati 100 MW HBPP	Physical
October-2026								
2.	IH-CB-0071	Mechanical Maintenance of Engine	কর্মকর্তা/ কর্মচারী (যান্ত্রিক সংরক্ষণ বিভাগ)	3	20	480	Madhumati 100 MW HBPP	Physical
November-2026								
3.	IH-CB-0072	Electrical Trouble Shooting & Maintenance	কর্মকর্তা/ কর্মচারী (তড়িৎ সংরক্ষণ বিভাগ)	3	20	480	Madhumati 100 MW HBPP	Physical
December-2026								
4.	IH-CB-0048	নিরাপত্তা এবং ফায়ার সেফটি	সিকিউরিটি সুপারভাইজার এবং সিকিউরিটি গার্ড	3	20	480	Madhumati 100 MW HBPP	Physical
January-2027								
5.	IH-CB-0029	Public Procurement Rules (2025)	SAE/ AE/ SDE/ XEN	3	20	480	Madhumati 100 MW HBPP	Physical

N. B At least one (01) CPD session will be arranged every month by each department. Each CPD session will be 2 (two) hours long.

Summary of Training of Madhumati

Total Employee	72
Total Required Training Hours (159*50)	3600
Total Training Program	5
Total Days	15
Total Participants	105
Targeted Training Hours by CPD (On the Job)	864
Total Expected Hour by Course Based Training	2520
Total Expected Hour by Course Based Training and CPD	3384

RUPSHA 800 MW COMBINED CYCLE Power Plant PROJECT

N. B At least one (01) CPD session will be arranged every month by each department. Each CPD session will be 2 (two) hours long.

Total Employee	56
Total Required Training Hours (56*50)	2800
Total Training Program	00
Total Days	00
Total Participants	00
Targeted Training Hours by CPD (On the Job)	672
Total Expected Hour by Course Based Training	00
Total Expected Hour by Course Based Training and CPD	672

Course Based Training List (Outside the Organization)

ক্রমিক নং	প্রস্তাবিত বিষয়/প্রশিক্ষণের শিরোনাম	প্রশিক্ষণের সম্ভাব্য মেয়াদকাল (দিন)	অংশগ্রহণকারী প্রশিক্ষণার্থীর ধাপ (পদভিত্তিক)	পদভিত্তিক প্রশিক্ষণার্থীর সংখ্যা
১.	Fundamental Protection Schemes for Power Generation and Evacuation Systems	৫ দিন	সহকারী প্রকৌশলী (তড়িৎ/কম্পিউটার) থেকে নির্বাহী প্রকৌশলী (তড়িৎ/কম্পিউটার) পর্যন্ত	০৩
২.	Frequency Control, Grid Integration and Power System Stability Analysis with FGMO, AGC and SCADA Applications	৫ দিন	সহকারী প্রকৌশলী থেকে তদুর্ধ্ব	০২
৩.	Advanced Computer Networking, Firewall Architecture and Configuration	৫ দিন	সহকারী প্রকৌশলী(তড়িৎ/কম্পিউটার) থেকে নির্বাহী প্রকৌশলী (তড়িৎ/কম্পিউটার) পর্যন্ত	০৩
৪.	Environmental Compliance Framework and Impact Assessment Procedures	৩ দিন	সহকারী প্রকৌশলী/ সহকারী ব্যবস্থাপক (পরিবেশ) থেকে তদুর্ধ্ব	০৩
৫.	Fundamentals of TQM & TPM and Their Applications in Power Sector	৩ দিন	সহকারী প্রকৌশলী/সহকারী ব্যবস্থাপক থেকে তদুর্ধ্ব	০২
৬.	Non-Destructive Testing (NDE) Methods & Applications in Power Plants	৩ দিন	সহকারী প্রকৌশলী থেকে তদুর্ধ্ব	০২
৭.	Maintaining Quality of Water & Steam Used in Different Processes of Power Generation	৩ দিন	উপ-সহকারী ব্যবস্থাপক (কেমিস্ট্রি/ কেমিকৌশল) থেকে ব্যবস্থাপক (কেমিস্ট্রি/ কেমিকৌশল) পর্যন্ত	০২
৮.	Organizational Development and Digital HR Transformation	৩ দিন	ব্যবস্থাপক বা সমমানের পদ থেকে তদুর্ধ্ব	০৩
৯.	Leadership Development & Succession Planning for HR Personnel	৪ দিন	সহকারী ব্যবস্থাপক থেকে তদুর্ধ্ব	০২
১০.	HR Management in Power Sector Organizations	৩ দিন	সহকারী ব্যবস্থাপক থেকে তদুর্ধ্ব	০২
১১.	HR Analytics & Technology	২ দিন	সহকারী ব্যবস্থাপক থেকে তদুর্ধ্ব	০২
১২.	Strategic HR Management & AI Implementation in HR	৩ দিন	সহকারী ব্যবস্থাপক থেকে তদুর্ধ্ব	০২
১৩.	Internal Auditor course on IMS- Integrated Management (ISO 45001: 2018, ISO 9001:2015, ISO 14001:2015)	২ দিন	সহকারী ব্যবস্থাপক (পরিবেশ) থেকে তদুর্ধ্ব	০২
১৪.	Company Act & Share listing of Power Sector Utilities	৩ দিন	সহকারী ব্যবস্থাপক থেকে তদুর্ধ্ব	০২

ক্রমিক নং	প্রস্তাবিত বিষয়/প্রশিক্ষণের শিরোনাম	প্রশিক্ষণের সম্ভাব্য মেয়াদকাল (দিন)	অংশগ্রহণকারী প্রশিক্ষণার্থীর ধাপ (পদভিত্তিক)	পদভিত্তিক প্রশিক্ষণার্থীর সংখ্যা
১৫.	Corporate Governance for Sustainable Business Success	৩ দিন	সহকারী ব্যবস্থাপক থেকে তদুর্ধ্ব	০২
১৬.	Finance for Non-finance Managers (FfNF)	৩ দিন	সহকারী ব্যবস্থাপক/ সহকারী প্রকৌশলী থেকে তদুর্ধ্ব	০৩
১৭.	Audit and Financial Management	৫ দিন	সহকারী ব্যবস্থাপক (হিসাব, অর্থ ও নিরীক্ষা) থেকে তদুর্ধ্ব	০২
১৮.	International Financial Reporting Standards (IFRS)	৪ দিন	সহকারী ব্যবস্থাপক (হিসাব, অর্থ ও নিরীক্ষা) থেকে তদুর্ধ্ব	০২
১৯.	Financial Management	০৪ দিন	সহকারী ব্যবস্থাপক (হিসাব/অর্থ/নিরীক্ষা) থেকে তদুর্ধ্ব	০২
২০.	Fintech	০২ দিন	সহকারী ব্যবস্থাপক (হিসাব/অর্থ/নিরীক্ষা) থেকে তদুর্ধ্ব	০২
২১.	Financing through Capital Market	০৩ দিন	সহকারী ব্যবস্থাপক (হিসাব/অর্থ/নিরীক্ষা) থেকে তদুর্ধ্ব	০২
২২.	Loan Due diligence	০২ দিন	সহকারী ব্যবস্থাপক (হিসাব/অর্থ/নিরীক্ষা) থেকে তদুর্ধ্ব	০৩
২৩.	AI Engineering	১৫ দিন	সহকারী ব্যবস্থাপক (আইসিটি) থেকে তদুর্ধ্ব	০২
২৪.	AI assisted development	১৫ দিন	সহকারী ব্যবস্থাপক (আইসিটি) থেকে তদুর্ধ্ব	০২
২৫.	AI based Cloud computing and DevOps	১৫ দিন	সহকারী ব্যবস্থাপক (আইসিটি) থেকে তদুর্ধ্ব	০২
২৬.	3-week training on public procurement management (PPM)	০৩ সপ্তাহ	কারিগরি ও অকারিগরি কর্মকর্তা	০৩
২৭.	e-GP PE User Training	০৫ দিন	পিই ব্যবহারকারী	০২
২৮.	Training on Insurance (Marine Insurance)	০৫ দিন	পিই ব্যবহারকারী	০২

COURSE CONTENTS

List of Courses

SL	Course Name	Target Employee	Page No
	Officer		
1.	Basic Thermodynamics & Power Generation Systems with Practical Implications	Technical Officers	
2.	Contract Management (NCT)	Officer	
3.	International Financial Reporting Standards (IFRS) & International Accounting Standards (IAS)	Officers of Accounts and Finance Cadre	
4.	Comprehensive Framework of Power Sector Agreements: PPA Structures, Tariff Models, Billing Mechanisms & Related Contracts (GSA, FSA, LLA, IA, etc.) for Conventional & Renewable Power Plants	All Officers	
5.	Energy EE&C and Energy Auditing for Power Plants: Performance Measurement & Optimization, ECM Evaluation & Implementation.	Technical Officers	
6.	Professional Training on Bangladesh Labour Act, Rules and Disciplinary Procedures	All Officers	
7.	Power Sector Financing & Project Finance	Officers	
8.	Comprehensive Methodology for Project Feasibility Assessment	Technical and Finance Officers	
9.	Frequency Control, Grid Integration and Power System Stability Analysis with FGMO, AGC and SCADA Applications	Technical Officers	
10.	Employee Service Rules and Delegation of Administrative Power	All Officers	
11.	Public Procurement Act and Rules	Officer	
12.	Finance for Non-Finance Professionals	Non-Finance Officers	
13.	Leadership and Organizational Development	SD/DM to Manager/XEN	
14.	Utility-Scale and Rooftop Solar Power Plant Design and Performance Analysis Using PVsyst	Technical Officers	
15.	AI-Powered Productivity: Mastering Prompt & use of Intelligent Tools for Professional Excellence	All Officers	
16.	Advanced Microsoft Office Applications and Financial Modelling for Power Projects	All Officers	
17.	Government Project Formulation, Approval Process and DPP Preparation including related software (PPS & PMIS)	Technical and Finance Officers	
18.	Planning, Monitoring and Control of Scope, Schedule and Cost of Project or Specialized Major Maintenance of Plants using Microsoft Project (MS Project)	Technical and Finance Officers	
19.	Strategic Leadership for organizational Planning and Management	SE/DGM and Above	

20.	Power Sector Overview, Generation Technologies, Fuel Choice & Sourcing, Transition Pathway in Bangladesh Context for Multi-disciplinary Professionals (Including a plant visit)	Non-Technical Officers	
21.	Strategic Human Resource Management and Organizational Development	Manager/XEN and above	
22.	Institutional Frameworks and recent policies of Bangladesh Power Sector (Master Plan, SDG, NDC-3, RE Policy)	All Officers	
23.	Tender Document Preparation (National and International)	Officer	
24.	Training on Letter of Credit (LC) and its application, Insurance & Customs Clearance	Officer	
25.	Professional Excellence in Office Management, Stress Management	(XEN and Above)	
26.	Public Private Partnership: Inception to Implementation	Officers	
27.	Induction Training	Newly Recruited Officers & Staffs	
28.	Basic Training on First Aid	First Aider & Officer & Staffs	
29.	Public Procurement Rules (2025)	CE/SE/XEN	
30.	Electrical System Troubleshooting & Case Study Analysis in Power Plants	XEN/SDE/AE of EMD/I&C/Operation	
31.	Contingency Plan of Plant Operation	Officers of Operation	
32.	DOFP & Public Procurement Rules (2025)	Officers (SDE/AE)	
33.	Instrumentation & Control Systems in Power Plant	Officers & Staffs of I&C	
34.	Mechanical Maintenance Training level-01	SAE / AE / SDE / of MMD /EMD/I&C	
35.	Essential Management Skill Training	Officers	
36.	Fundamentals of Electrical Systems and Equipment Operation.	Technical Staffs of EMD/I&C/Operation	
37.	Electrical Maintenance Training Level-1	SAE / AE / SDE / XEN	
38.	I&C Training Level-1	SAE / AE / SDE / XEN	
39.	Training on Gas Turbine Maintenance, Vibration Management & Power Plant Reliability.	XEN/SDE/AE	
40.	Training on Good Governance, Leadership, Team Building and Corruption Prevention in Workplace.	Officers/Staffs	
41.	Operation & Maintenance of Combined Cycle Power Plant	Technical Officers	
42.	NWPGCL Service rules, Labour Law 2006, and Government Service Rules	Officers	
43.	Office Management	OA/JAM/SAE	

44.	প্রাতিষ্ঠানিক আচরণ, ছুটি ও সুবিধাদি ব্যবস্থাপনা, শৃঙ্খলা এবং প্রশাসনিক ব্যবস্থা	কর্মকর্তা/ কর্মচারী	
45.	Advanced Mechanical Maintenance of Engine	কর্মকর্তা/ কর্মচারী (যান্ত্রিক সংরক্ষণ বিভাগ)	
46.	Advanced Electrical Trouble Shooting & Maintenance	কর্মকর্তা/ কর্মচারী (তড়িৎ সংরক্ষণ বিভাগ)	
Staff			
1.	কর্মক্ষেত্রে আচরণ, পেশাদারিত্ব, শিষ্টাচার ও নৈতিকতা	সকল কর্মচারী	
2.	ড্রাইভিং কলাকৌশল ও সড়ক আইন	ড্রাইভার	
3.	কর্মক্ষেত্রে, ছুটি, সুবিধাদি, শৃঙ্খলা ও শান্তি	All Staffs	
4.	ফায়ার সেফটি ট্রেনিং (অগ্নি প্রতিরোধ, নির্বাণ, উদ্ধার ও প্রাথমিক চিকিৎসা বিষয়ক)	সকল কর্মচারী	
5.	অফিস সহায়তা কার্যক্রম ও ব্যবস্থাপনা	অফিস সহকারী/হিসাব সহকারী	
6.	Common Job Rules & Regulation and Expected OB	Staff	
7.	যান্ত্রিক রক্ষণাবেক্ষণ ও নিরাপত্তা	Technical Staffs of MMD /EMD/I&C	
8.	Contingency Plan of Plant Operation	Staffs	
9.	ইলেকট্রিক্যাল, অটোমেশন ও ইন্সট্রুমেন্টেশন এর মৌলিক ধারণা ও নিরাপত্তা	কারিগরি কর্মচারী (ইলেকট্রিক্যাল ও আইএন্ডসি বিভাগ)	
10.	Fundamentals of Combined Cycle Power Plant Operation	Technical staffs	
11.	Fundamentals of Combined Cycle Power Plant Maintenance	Technical staffs	
12.	Basic Training on First Aid	Staffs	
13.	কেপিআই নিরাপত্তা ব্যবস্থাপনা	Security staffs	
14.	উন্নত নিরাপত্তা এবং ফায়ার সেফটি	সিকিউরিটি সুপারভাইজার এবং সিকিউরিটি গার্ড	
15.	Contingency Plan of Power Plant Operation	Technical Staffs	

COURSE CONTENTS OF CORPORATE OFFICE

1. Basic Thermodynamics in Power Generation with Practical Applications

Course Code	:	IH-CB-0034
Course Name	:	Basic Thermodynamics in Power Generation with Practical Applications
Duration	:	05 Days
Number of Sessions	:	25
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Technical Officers
No. Of Participants	:	25
Course Objectives	:	To enable participants to apply thermodynamic concepts in practical workplace scenarios for improving operational efficiency, troubleshooting, and energy management.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day -1

Session 1, 2 & 3: Thermodynamic principles in power generation

- Basic thermodynamic laws & principles
- Thermodynamic cycles

Session 4 & 5: Thermodynamic principles in power generation

- Practical implication of thermodynamic cycles
- Improvised systems in power generation along with thermodynamic cycles

Day -2

Session 6, 7 & 8: Components of power generation system

- Turbine types, configurations and operational characteristics
- Basic design features of Gas Turbine

Session 9 & 10: Components of power generation system

- Basic design features of Steam Turbine
- Basic design features of boiler/ steam generators
- Condenser, feedwater system and cooling water system

Day 3:

Session 11, 12 & 13: Fuel Systems and Combustion Technologies

- Coal, gas, and liquid fuel characteristics and handling
- Combustion principles
- Emission formation and control mechanism
- Fuel flexibility and alternative fuel integration approaches

Session 14 & 15: Different Protection Schemes

- Generator protection schemes (Differential, Reverse Power, Loss of Excitation, Over-fluxing, Stator/Rotor Earth Fault)

Day 4:

Session 16, 17 & 18: Different Protection Schemes

- Transformer protection schemes (Differential, REF, Buchholz, Overcurrent & Earth Fault
- Turbine and boiler protection systems (Overspeed, Vibration, Temperature, Pressure, Flame Failure, Furnace Safeguard)

Session 19 & 20: Different Protection Schemes

- Protection coordination philosophy and interlocks
- Protective relays, trip logics and emergency shutdown systems

Day 5:

Session 21& 22: Operation & Maintenance Philosophy

- Preventive, predictive and corrective maintenance concepts
- Reliability-centered maintenance (RCM) and condition monitoring

Session 23 & 24: Operation & Maintenance Philosophy

- Plant operating procedures and best practices
- Root cause analysis (RCA) and troubleshooting techniques

Session 25: Operation & Maintenance Philosophy

- Safety management, permit-to-work (PTW) and lockout/tagout (LOTO) procedures
- Asset management and performance optimization strategies

2. Contract Management

Course Code	:	IH-CB-0035
Course Name	:	Contract Management
Duration	:	02 day
Number of Sessions	:	10
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:30 PM – 04:30 PM
Target Group	:	Officer
No. Of Participants	:	25
Course Objectives	:	To get a clear idea on contract Management.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day-1

Session 1: Contract Administration

- Elements of Contract management
- Contract Administration and Management

Session 2 & 3: Variation & Repeat Order

- Issuance of Variation Orders
- Preparation of Variation Orders
- Payment for Variation Work
- Management of Goods Contracts
- Additional Supply of Goods

Session 4 & 5: Physical, Intellectual & Professional Service

- Contract Management for Intellectual & Professional Services
- Quality Control, Progress Monitoring, Contract Compliance

Day-2

Session 6: Physical Services & Outsourcing

- Contract Management for Physical Services
- Outsourcing Contract

Session 7: Contract Completion & Bill Payment

- Work Completion
- Supply Completion
- R&I
- QC
- Store Entry
- Store Consumption
- Warranty Period/ DLP
- Warranty Claim
- Warranty disputes
- Verification of Bills
- Inspection and Certification
- Approval & Authorization
- Timely Payment & Record Keeping
-

Session 8 & 9: Contract Termination & Dispute Settlement

- Termination for default
- Termination for Insolvency
- Termination for Convenience
- Post-Termination Procedures
- Dispute Resolution Mechanism
-

Session 10: Contract Amendment, Closeout, Audit

- Contract Amendment
- Completion certificate
- Final settlement
- Release of securities
- Audit readiness

3. International Financial Reporting Standards (IFRS) & International Accounting Standards (IAS)

Course Code	:	IH-CB-0036
Course Name	:	International Financial Reporting Standards (IFRS) & International Accounting Standards (IAS)
Duration	:	05 Days
Number of Sessions	:	25
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:30 PM – 04:30 PM
Target Group	:	Officers of Accounts and Finance Cadre
No. Of Participants	:	25
Course Objectives	:	The objective of this training course is to enhance the knowledge and professional competence of officers of the Accounts and Finance discipline of NWPGCL in the application of International Financial Reporting Standards (IFRS) and International Accounting Standards (IAS) relevant. The course is designed to develop practical skills in preparation and presentation of IFRS-compliant financial statements, accounting for power plant assets and projects, treatment of borrowing costs, leases, government grants, employee benefits, foreign exchange transactions, and other significant financial reporting areas. It also aims to strengthen participants' understanding of regulatory compliance, disclosure requirements, financial analysis, and best practices in corporate financial reporting to ensure greater transparency, accountability, and effective financial management within NWPGCL.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day-1

Session 1: Introduction to IAS/IFRS and Financial Reporting Environment

- Meaning, objectives, and scope of IAS and IFRS
- Importance of standardized financial reporting in NWPGCL
- Evolution from IAS to IFRS and global convergence trends in financial reporting practices
- Overview of regulatory framework governing IFRS adoption, including the role of the International Accounting Standards Board (IASB) and IFRS Foundation
- Adoption status of IFRS in Bangladesh
- Role of professional and regulatory bodies such as FRC and ICAB.
- Application of IFRS/IAS in NWPGCL financial reporting environment

Session 2: Conceptual Framework of Accounting

- Introduction, objectives, and importance of the Conceptual Framework
- Users and objectives of financial reporting
- Qualitative characteristics of useful financial information
- Elements of financial statements: Assets, liabilities, equity, income, and expenses
- Recognition and measurement principles in accounting

Session 3: Presentation of Financial Statements (IAS 1)

- Objective, scope, and importance of IAS 1 in financial reporting
- Components and structure of a complete set of financial statements
- Fundamental accounting assumptions
- Presentation requirements for statements
- Disclosure requirements, materiality, and comparative information
- Classification of current and non-current assets and liabilities
- Practical issues and case studies on compliance with IAS 1 requirements

Session 4: Inventories (IAS 2)

- Objective, scope, and importance of IAS 2 in inventory accounting
- Definition and classification of inventories
- Cost of inventories: Purchase cost, conversion cost, and other related costs
- Inventory valuation methods: FIFO and weighted average cost method
- Net realizable value (NRV) and inventory write-down procedures
- Recognition of inventory expenses and disclosure requirements
- Practical examples and case studies on IAS 2

Session 5: Statement of Cash Flows (IAS 7)

- Objective, scope, and importance of IAS 7 in financial reporting
- Classification of cash flows into operating, investing, and financing activities
- Methods of preparing cash flow statement: Direct and indirect method
- Identification and treatment of cash and cash equivalents
- Non-cash transactions and their disclosure requirements
- Practical illustration and interpretation of cash flow statements

Day-2

Session 6: Accounting Policies, Changes in Accounting Estimates and Errors (IAS 8)

- Objective, scope, and importance of IAS 8 in consistent financial reporting
- Definition of accounting policies and selection principles (relevance and reliability)
- Changes in accounting policies: retrospective application and disclosure requirements
- Changes in accounting estimates: prospective recognition and impact on financial statements
- Correction of prior period errors and restatement requirements
- Distinction between accounting policies, estimates, and errors
- Practical examples and case studies on application of IAS 8 in financial reporting

Session 7: Events After the Reporting Period (IAS 10)

- Objective, scope, and importance of IAS 10 in financial reporting
- Definition and classification of events after the reporting period

- Adjusting events: Recognition and impact on financial statements
- Non-adjusting events: Disclosure requirements and examples
- Cut-off date principles and authorization for issue of financial statements
- Dividends declared after reporting period and their accounting treatment
- Practical case studies on post-reporting period events and disclosure compliance

Session 8: Income Taxes (IAS 12)

- Objective, scope, and importance of IAS 12 in financial reporting
- Current tax: recognition, measurement, and accounting treatment
- Deferred tax concept: temporary differences between accounting profit and taxable profit
- Recognition of deferred tax assets and liabilities
- Measurement principles of deferred tax using enacted or substantively enacted tax rates
- Treatment of tax losses, unused tax credits, and their recognition criteria

Session 9: Property, Plant and Equipment (PPE) (IAS 16)

- Objective, scope, and importance of IAS 16 in accounting for fixed assets
- Recognition criteria for Property, Plant and Equipment (PPE)
- Initial measurement: cost components including purchase price, installation, and directly attributable costs
- Subsequent measurement models: Cost model and Revaluation model
- Depreciation methods, useful life, and residual value estimation
- Derecognition of PPE and gain/loss treatment on disposal
- Disclosure requirements and practical issues in PPE accounting and reporting

Session 10: Employee Benefits (IAS 19)

- Objective, scope, and classification of employee benefits under IAS 19
- Types of employee benefits: short-term, post-employment, other long-term, and termination benefits
- Accounting treatment for short-term employee benefits (wages, salaries, bonuses, leave)
- Post-employment benefits: defined contribution vs defined benefit plans
- Recognition and measurement of defined benefit obligations using actuarial assumptions
- Actuarial gains/losses and their treatment in financial statements
- Disclosure requirements and impact of employee benefit obligations on financial position and performance

Day-3

Session 11: Accounting for Govt. Grants and Disclosure of Govt. Assistance (IAS 20)

- Objective, scope, and importance of IAS 20 in financial reporting
- Definition of government grants and government assistance
- Recognition criteria for government grants
- Accounting treatment: capital approach vs income approach
- Presentation of grants related to assets and income in financial statements
- Treatment of repayment of government grants and related adjustments
- Disclosure requirements and practical implications for compliance and transparency

Session 12: The Effects of Changes in Foreign Exchange Rates (IAS 21)

- Objective, scope, and importance of IAS 21 in foreign currency accounting
- Functional currency vs presentation currency: definition and determination
- Initial recognition of foreign currency transactions at spot exchange rates
- Subsequent measurement of monetary and non-monetary items
- Treatment of exchange differences and recognition in profit or loss or other comprehensive income
- Translation of foreign operations in consolidated financial statements
- Disclosure requirements and practical issues in managing foreign exchange exposure

Session 13: Borrowing Costs (IAS 23) and Related Party Disclosures (IAS 24)

- IAS 23: Objective, scope, and importance of accounting for borrowing costs
- IAS 23: Criteria for capitalization of borrowing costs and treatment of borrowings
- IAS 23: Commencement, suspension, and cessation of capitalization of borrowing costs
- IAS 24: Objective, scope, and importance of IAS 24
- IAS 24: Identification of related parties
- IAS 24: Disclosure requirements for related party transactions
- IAS 23 & IAS 24: Practical implications for financial reporting, governance, and compliance in corporate entities

Session 14: Separate Financial Statements (IAS 27) and Investments in Associates and Joint Ventures (IAS 28)

- Objective, scope, and importance of IAS 27 and IAS 28 in financial reporting
- IAS 27: preparation and presentation of separate financial statements
- Measurement of investments in subsidiaries, associates, and joint ventures
- IAS 28: identification of associates and joint ventures based on joint control
- Application of the equity method in accounting for associates and joint ventures
- Recognition of investor's share of profit or loss and other comprehensive income
- Disclosure requirements and practical implications for group financial reporting and consolidation decisions

Session 15: Earnings per Share (IAS 33)

- Objective, scope, and importance of IAS 33 in financial reporting
- Meaning and significance of Earnings per Share (EPS) for investors and stakeholders
- Calculation of Basic EPS
- Calculation of Diluted EPS
- Adjustment for bonus issues, rights issues, and share splits in EPS computation
- Presentation and disclosure requirements of EPS in financial statements
- Practical examples and interpretation of EPS for investment decision-making

Day-4**Session 16: Interim Financial Reporting (IAS 34)**

- Objective, scope, and importance of IAS 34 in financial reporting
- Definition and purpose of interim financial reporting for timely information to users
- Minimum components of interim financial statements
- Recognition and measurement principles: consistency with annual financial statements
- Use of accounting policies in interim reporting and treatment of seasonal revenues

- Disclosure requirements
- Practical implications and challenges in preparing interim financial reports

Session 17: Impairment of Assets (IAS 36)

- Objective, scope, and importance of IAS 36 in financial reporting
- Identification of indicators of impairment for tangible and intangible assets
- Determination of recoverable amount
- Concept of cash-generating units (CGUs) and allocation of impairment losses
- Recognition and measurement of impairment loss in profit or loss
- Reversal of impairment losses and conditions under which reversal is permitted
- Disclosure requirements and practical implications for asset valuation and financial reporting accuracy

Session 18: Provisions, Contingent Liabilities and Contingent Assets (IAS 37)

- Objective, scope, and importance of IAS 37 in financial reporting
- Definition and recognition criteria for provisions
- Measurement of provisions: best estimate and present value considerations
- Contingent liabilities: definition, treatment, and disclosure requirements
- Contingent assets: definition and conditions for disclosure
- Onerous contracts and restructuring provisions accounting treatment
- Practical case studies and disclosure requirements for provisions and contingencies in financial statements

Session 19: Intangible Assets (IAS 38)

- Objective, scope, and importance of IAS 38 in accounting for intangible assets
- Definition and recognition criteria for intangible assets
- Initial measurement of intangible assets: cost recognition principles
- Internally generated intangibles: research vs development phase treatment
- Subsequent measurement: cost model and revaluation model
- Amortization of finite-life intangible assets and impairment of indefinite-life assets
- Disclosure requirements and practical issues in valuation and reporting

Session 20: Investment Property (IAS 40)

- Objective, scope, and importance of IAS 40 in financial reporting of investment property
- Definition and classification of investment property vs owner-occupied property
- Initial recognition and measurement at cost (including transaction costs)
- Subsequent measurement models: fair value model and cost model
- Treatment of gains or losses arising from changes in fair value under IAS 40
- Transfers between investment property and other asset categories and related accounting treatment
- Disclosure requirements and practical implications for real estate and property investments

Day-5

Session 21: Business Combinations (IFRS 3), Consolidated Financial Statements (IFRS 10) and Joint Arrangements (IFRS 11)

- IFRS 3: Objective, scope, and accounting for business combinations using the acquisition method

- IFRS 3: Identification of acquirer, fair value measurement of net assets, and recognition of goodwill or bargain purchase gain
- IFRS 10: Control-based consolidation model and preparation of consolidated financial statements
- IFRS 10: Treatment of subsidiaries, elimination of intra-group transactions, and recognition of non-controlling interest
- IFRS 11: Objective and classification of joint arrangements (joint operations vs joint ventures)
- IFRS 11: Accounting treatment of joint operations (line-by-line recognition) and joint ventures (equity method)
- IFRS 3, 10 & 11: Practical application in group structuring, mergers, and collaborative business arrangements with disclosure requirements

Session 22: Operating Segments (IFRS 8)

- Objective, scope, and importance of IFRS 8 in segment reporting
- Definition of operating segments based on internal management reporting approach
- Identification of reportable segments using quantitative thresholds
- Disclosure requirements for segment revenue, profit or loss, and assets
- Entity-wide disclosures including products/services, geographical areas, and major customers
- Role of chief operating decision maker (CODM) in segment identification and reporting
- Practical implications of IFRS 8 for transparency and investor decision-making

Session 23: Revenue from Contracts with Customers (IFRS 15)

- Objective, scope, and importance of IFRS 15 in revenue recognition
- Five-step model for revenue recognition under IFRS 15
- Identification of contracts and performance obligations in a contract
- Determination of transaction price including variable consideration and significant financing components
- Allocation of transaction prices to performance obligations based on stand-alone selling prices
- Revenue recognition over time vs point in time based on transfer of control
- Disclosure requirements and practical challenges in applying IFRS 15 in real business scenarios

Session 24: Leases (IFRS 16)

- Objective, scope, and importance of IFRS 16 in lease accounting
- Definition of a lease and identification of lease contracts
- Lessee accounting model: recognition of right-of-use (ROU) assets and lease liability
- Initial measurement of lease liability and ROU asset (present value of lease payments)
- Subsequent measurement
- Lessor accounting treatment and classification of operating vs finance leases
- Disclosure requirements and practical impact of IFRS 16 on financial statements and key financial ratios

Session 25: Presentation and Disclosure in Financial Statements (IFRS 18)

- Objective, scope, and importance of IFRS 18 in improving financial statement presentation and comparability
- Structure of the statement of profit or loss with enhanced classification of income and expenses
- Introduction of defined subtotals such as operating profit and management performance measures
- Principles for aggregation and disaggregation of financial information for better clarity
- Enhanced requirements for classification of items into operating, investing, and financing categories
- Improved disclosure requirements for management-defined performance measures and explanations
- Practical impact of IFRS 18 on financial reporting transparency, analysis, and investor decision-making

4. PPA Structures, Tariff Models, Billing Mechanisms & Fuel Supply Contracts for different types of Power Plants

Course Code	:	IH-CB-0037
Course Name	:	PPA Structures, Tariff Models, Billing Mechanisms & Fuel Supply Contracts for different types of Power Plants
Duration	:	04 Days
Number of Sessions	:	20
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	All Officers
No. Of Participants	:	25
Course Objectives	:	Interpret the structure, key provisions, and commercial terms of Power Purchase Agreements (PPAs) and related agreements, including Gas Supply Agreements (GSAs), Fuel Supply Agreements (FSAs), Land Lease Agreements (LLAs), Implementation Agreements (IAs), and other project contracts.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:**Day -1****Session 1, 2 & 3: PPA Structures and Commercial Framework**

- Types of power purchase agreements: take-or-pay, merchant, hybrid
- Key commercial clauses: capacity payment, energy payment, tariff escalation

Session 4 & 5: PPA Structures and Commercial Framework

- Risk allocation between off-taker and generator: force majeure, change in law
- Performance guarantees and liquidated damages provisions

Day -2

Session 6, 7 & 8: Ancillary Agreements: GSA, FSA, LLA and Implementation Contracts

- Generation Supply Agreement: gas supply terms and pricing mechanisms
- Fuel Supply Agreement: coal/LNG procurement and delivery obligations

Session 9 & 10: Ancillary Agreements: GSA, FSA, LLA and Implementation Contracts

- Land Lease and Implementation Agreements: site access and development rights
- Interconnection and grid access agreements with transmission entities

Day 3:

Session 11 & 12: Tariff Models and Billing Mechanisms

- Cost-plus versus competitive bidding tariff determination approaches
- Heat rate guarantees, availability thresholds and performance adjustments

Session 13, 14 & 15: Tariff Models and Billing Mechanisms

- Monthly billing calculation: capacity charges, energy charges, fuel adjustments
- Dispute resolution mechanisms and payment security arrangements

Day 4:

Session 16, 17 & 18: Renewable Energy Agreements and Emerging Contract Models

- PPA variations for solar and wind projects: indexation, curtailment provisions
- Corporate PPA and wheeling arrangements for renewable energy
- Hybrid project agreements and storage integration considerations

Session 19 & 20: Renewable Energy Agreements and Emerging Contract Models

- Case study analysis and group exercise on contract clause drafting

5. Energy Efficiency, Conservation and Energy Auditing for Power Plants

Course Code	:	IH-CB-0038
Course Name	:	Energy Efficiency, Conservation and Energy Auditing for Power Plants
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Technical Officers
No. Of Participants	:	25
Course Objectives	:	To provide participants with a comprehensive understanding of Energy Efficiency & Conservation (EE&C) principles and energy auditing methodologies applicable to power plants.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day -1

Session 1 & 2: Energy Efficiency Fundamentals and Audit Methodology

- Energy conservation concepts and regulatory framework in Bangladesh
- Types of energy audits: preliminary, detailed, investment-grade

Session 3, 4 & 5: Energy Efficiency Fundamentals and Audit Methodology

- Audit planning, data collection protocols and measurement techniques
- Baseline establishment and benchmarking against industry standards

Day -2

Session 6: Performance Monitoring and Loss Analysis

- Key performance indicators for thermal power plants
- Heat balance analysis and loss identification methodologies

Session 7 & 8: Performance Monitoring and Loss Analysis

- Auxiliary power consumption patterns and reduction opportunities
- Real-time monitoring systems and data interpretation skills

Session 9 & 10: Energy Conservation Measures Evaluation and Implementation

- Technical and economic assessment of ECMs
- Retrofit options for turbines, boilers and auxiliary systems

Day 3:

Session 11 & 12: Energy Conservation Measures Evaluation and Implementation

- Cost-benefit analysis and payback period calculations
- Implementation planning, risk assessment and performance verification

Session 13: Reporting and Continuous Improvement Framework

- Audit report structure and stakeholder communication strategies
- Action plan development and monitoring mechanisms

Session 14 & 15: Reporting and Continuous Improvement Framework

- Integration with management systems and ISO standards
- Case study review and group exercise on sample plant audit

6. Professional Training on Bangladesh Labour Act, Labour Rules and Disciplinary Procedures

Course Code	:	IH-CB-0039
Course Name	:	Professional Training on Bangladesh Labour Act, Labour Rules and Disciplinary Procedures
Duration	:	04 Days
Number of Sessions	:	20
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Officer
No. Of Participants	:	25
Course Objectives	:	To develop participants' knowledge and practical skills on the provisions of the Bangladesh Labour Act, Labour Rules, disciplinary procedures, domestic inquiry processes, grievance handling mechanisms, and legal compliance requirements to ensure effective workforce management and industrial harmony.
Evaluation Method	:	Pre-Test and Post-Test
Course Outline:		

Day 1: Strategic Understanding of Labour Laws and Employment Governance

Session 1: Labour Law Framework of Bangladesh

- Evolution of labour legislation in Bangladesh
- Structure of the Bangladesh Labour Act and Labour Rules
- Key compliance obligations of employers
- Emerging labour law challenges

Session 2: Employment Lifecycle Management

- Recruitment and appointment compliance
- Probation, confirmation and promotion
- Transfer, deputation and service continuity
- Separation and exit management

Session 3: Employment Documentation and Record Management

- Employee personal files
- Service books and employment records
- Statutory registers and documentation
- Digital record management practices

Session 4: HR Compliance Audit and Labour Inspection Readiness

- Labour compliance checklist
- Labour inspection preparation
- Common compliance gaps
- Corrective action planning

Session 5: Managing Legal Risks in Human Resource Administration

- High-risk HR decisions
- Documentation for legal protection
- Preventing labour disputes
- HR governance and accountability

Day 2: Industrial Relations, Employee Relations and Workplace Governance

Session 6: Building Positive Industrial Relations

- Industrial relations framework

- Employee participation mechanisms
- Trust-building strategies
- Managing unionized and non-unionized environments

Session 7: Trade Union Management and Collective Bargaining

- Trade union rights and responsibilities
- Collective bargaining process
- Negotiation techniques
- Managing collective agreements

Session 8: Workplace Discipline and Behavioral Standards

- Developing disciplinary culture
- Employee code of conduct
- Addressing behavioral issues
- Progressive discipline approaches

Session 9: Grievance Handling and Conflict Resolution

- Designing grievance procedures
- Workplace mediation techniques
- Conflict management frameworks
- Alternative dispute resolution methods

Session 10: Gender Awareness and Workplace Harassment, Ethics and Professional Conduct

- Sexual harassment prevention
- Workplace bullying and misconduct
- Ethics and integrity in employment
- Investigation and response mechanisms

Day 3: Disciplinary Procedures, Domestic Inquiry and Labour Litigation Management

Session 11: Designing Effective Disciplinary Systems

- Principles of discipline management
- Natural justice and due process
- Developing disciplinary policies
- Ensuring fairness and consistency

Session 12: Conducting Preliminary Investigations

- Fact-finding methodologies
- Evidence collection techniques
- Interviewing employees and witnesses
- Investigation reporting

Session 13: Show Cause, Charge Sheet and Domestic Inquiry Management

- Drafting disciplinary documents
- Inquiry committee formation
- Conducting hearings
- Documentation and record keeping

Session 14: Managing Termination, Dismissal and Separation Cases

- Legal grounds for disciplinary actions
- Dismissal and discharge procedures
- Retrenchment and redundancy management
- Post-separation legal considerations

Session 15: Labour Court Cases, Recent Judgments and Organizational Best Practices

- Common labour litigation issues
- Lessons from significant labour court decisions
- Employer mistakes leading to legal disputes
- Best practices for legally compliant organizations
- Action planning for workplace implementation

7. Power Sector Project Financing including Financial Modelling

Course Code	:	IH-CB-0041
Course Name	:	Power Sector Project Financing including Financial Modelling
Duration	:	04 Days
Number of Sessions	:	20
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:30 PM – 04:30 PM
Target Group	:	Officers
No. Of Participants	:	25
Course Objectives	:	The training course aims to enhance participants' knowledge and practical skills in power sector financing, project finance structures, and financial modeling techniques applicable to conventional and renewable energy projects. The program will provide a comprehensive understanding of the power sector value chain, financing sources, lender requirements, risk allocation mechanisms, project appraisal methodologies, and financial viability assessment. Participants will develop hands-on expertise in building and analyzing financial models, evaluating project feasibility, assessing debt-servicing capacity, conducting sensitivity and scenario analyses, and supporting investment decisions. The course is designed to equip professionals with the competencies required to structure, negotiate, finance, monitor, and manage power projects effectively while ensuring financial sustainability and value creation for stakeholders.
Evaluation Method	:	Pre-Test and Post-Test
Course Outline:		
Day-1		
Session 1: Power Generation Sector and Financing Structure • Overview of Bangladesh power sector • Characteristics of power sector investments • Capital-intensive nature of power projects • Financial lifecycle of power plants • Debt-equity financing concepts Session 2: Power Sector Economics and Tariff Mechanisms • Cost structure of power projects • Levelized Cost of Electricity (LCOE)		

- Capacity payments and energy payments
- Tariff determination methodologies
- Impact of fuel price and exchange rate fluctuations

Session 3: Sources of Financing for Power Sector

- Government financing
- Commercial bank financing
- Foreign loans and development partners
- Supplier's credit and export credit agencies
- Bond and capital market financing

Session 4: Development Partners and Public Sector Financing

- World Bank, ADB, JICA, AIIB financing
- Sovereign and non-sovereign financing
- Government guarantees and sovereign support
- Budgetary support mechanisms
- Procurement and compliance requirements

Session 5: Financing Challenges and Emerging Trends

- Liquidity challenges
- Foreign exchange constraints
- Fuel price volatility
- Green bonds and sustainable financing
- ESG and blended financing approaches

Day-2

Session 6: Fundamentals of Project Finance

- Principles of project finance
- Project finance vs corporate finance
- Financing structures for power projects
- Cash flow-based lending
- Project finance lifecycle

Session 7: Financial Appraisal of Power Projects

- Time value of money
- Net Present Value (NPV)

- Internal Rate of Return (IRR)
- Equity IRR vs Project IRR
- Payback Period and Profitability Index

Session 8: Debt Management and Financial Structuring

- Loan repayment mechanisms
- Interest capitalization
- Debt restructuring and refinancing
- Financial covenant analysis
- Debt sustainability assessment

Session 9: Risk Management in Power Project Financing

- Financial risks
- Operational risks
- Regulatory and political risks
- Foreign exchange risk management
- Risk mitigation strategies

Session 10: Renewable Energy Project Financing

- Solar and wind project financing
- Climate finance and green funds
- Carbon financing opportunities
- Renewable investment trends
- Bankability considerations

Day-3

Session 11: Introduction to Financial Modelling

- Purpose and applications
- Financial model architecture
- Modelling best practices
- Model assumptions and drivers
- Model review and error checking

Session 12: Financial Statement Modelling

- Integrated financial statements
- Revenue projections

- Operating expense forecasting
- Fuel cost modelling
- Capital expenditure planning

Session 13: Cash Flow Forecasting and Project Valuation

- Cash flow modelling
- Working capital forecasting
- Debt and equity schedules
- DCF valuation
- NPV and IRR applications

Session 14: Project Finance Modelling and Structuring

- Debt-equity structure modelling
- Loan amortization schedules
- Financing cost treatment
- Interest during construction (IDC)
- Project finance model setup

Session 15: Coverage Ratios and Financial Performance Analysis

- DSCR calculation and interpretation
- Financial covenant monitoring
- Debt service analysis
- Lender assessment requirements

Day-4

Session 16: Sensitivity and Scenario Modelling

- Sensitivity analysis techniques
- Scenario analysis
- Stress testing
- Exchange rate risk modelling
- Fuel price risk modelling

Session 17: Budgeting, Forecasting and Financial Planning

- Budget preparation
- Long-term financial forecasting
- Variance analysis

- Financial planning for generation companies
- Strategic financial sustainability

Session 18-20: Integrated Case Study and Model Development

- Complete power project financial model
- Tariff and cash flow analysis
- Debt repayment and DSCR modelling
- Financial viability assessment
- Group exercise and presentation

8. Comprehensive Methodology for Project Feasibility Assessment

Course Code	:	IH-CB-0042
Course Name	:	Comprehensive Methodology for Project Feasibility Assessment
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Technical and Finance Officers
No. Of Participants	:	25
Course Objectives	:	To enable participants to prepare and critically evaluate feasibility reports that support sustainable, viable, and cost-effective project implementation.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day -1

Session 1, 2 & 3: Feasibility Study Fundamentals and Scoping

- Types of feasibility studies: technical, financial, economic, environmental
- Role of feasibility assessment in project approval and investment decisions

Session 4 & 5: Feasibility Study Fundamentals and Scoping

- Pre-feasibility versus detailed feasibility: scope, depth and deliverables
- Stakeholder identification and consultation planning for feasibility phase

Day -2

Session 6, 7 & 8: Technical Feasibility Evaluation Framework

- Site assessment criteria: geotechnical, hydrological, access considerations
- Technology selection methodology and vendor evaluation protocols
- Capacity planning, layout optimization and utility requirement analysis
- Risk identification: technical uncertainties and mitigation strategies

Session 9 & 10: Financial and Economic Feasibility Analysis

- Capital cost estimation: equipment, civil works, contingencies
- Operating cost modeling: fuel, O&M, staffing, insurance components
- Financial metrics: NPV, IRR, payback period, debt service coverage
- Economic analysis: social discount rate, shadow pricing, cost-benefit

Day 3:

Session 11, 12 & 13: Integration, Reporting and Practical Exercise

- Synthesizing technical and financial findings into cohesive recommendation
- Feasibility report structure and executive summary preparation
- Sensitivity analysis and scenario planning for key assumptions

Session 14 & 15: Integration, Reporting and Practical Exercise

- Group case study: evaluating sample power project feasibility parameters

9. FGMO, AGC and SCADA Applications in Power Plants

Course Code	:	IH-CB-0043
Course Name	:	FGMO, AGC and SCADA Applications in Power Plants
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Technical Officers
No. Of Participants	:	25
Course Objectives	:	To develop participants' knowledge and practical skills in the application of Free Governor Mode Operation (FGMO), Automatic Generation Control (AGC), and SCADA systems for reliable grid operation and performance monitoring.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day -1

Session 1 & 2: Frequency Control Theory and Governor Systems

- Power system frequency dynamics and load-frequency relationship
- Governor droop characteristics and primary frequency response

Session 3: Frequency Control Theory and Governor Systems

- Secondary and tertiary control mechanisms in interconnected grids
- Bangladesh Grid Code requirements for frequency management

Session 4 & 5: Automatic Generation Control and SCADA Applications

- AGC algorithms and area control error calculation
- SCADA system architecture and real-time data acquisition

Day -2

Session 6, 7 & 8: Automatic Generation Control and SCADA Applications

- Communication protocols and cybersecurity considerations
- Practical demonstration of control room operations and interfaces

Session 9 & 10: Power System Stability and Grid Integration Challenges

- Transient, dynamic and voltage stability fundamentals

- Impact of renewable energy penetration on system stability

Day 3:

Session 11 & 12: Power System Stability and Grid Integration Challenges

- Reactive power management and voltage control strategies
- Fault analysis and protection coordination for grid compliance

Session 13: Practical Case Studies and Operational Drills

- Analysis of real grid disturbance events in Bangladesh context

Session 14 & 15: Practical Case Studies and Operational Drills

- Simulation exercises for frequency deviation response
- Troubleshooting scenarios and emergency procedure reviews
- Final assessment and knowledge consolidation workshop

10. Employee Service Rules and Delegation of Administrative Power

Course Code	:	IH-CB-0026
Course Name	:	Employee Service Rules and Delegation of Administrative Power
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Officer
No. Of Participants	:	25
Course Objectives	:	This training is designed to build understanding and proper application of Employee Service Rules and Delegation of Administrative Power in accordance with organizational regulations. The goal is to ensure uniform interpretation, policy compliance, and efficient personnel management by equipping participants with rule-wise clarity and decision-making authority.
Evaluation Method	:	Pre-Test and Post-Test
Course Outline:		

Day 1: Foundations of Service Rules

Session 1: Introduction, Scope & Definitions

- Chapter 1: Rules 01–02 (Short Title, Application, Definitions)
- Understanding structure and legal status of the rules

Session 2: Post Creation, Categories & Probation

- Chapter 2: Rules 03–06 (Creation of posts, Classification, Filling posts, Probation)
- Roles of competent authorities in post management

Session 3: Recruitment, Promotion & Transfer Policies

- Chapters 3–4: Rules 07, 08, 10, 12
- Selection criteria, service conditions, inter-department movement

Session 4: Pay Structure, Allowances & Time Regulations

- Rules 09, 11, 13–22
- Increment rules, joining time, income tax, uniforms/liveries

Session 5: *Comparative Pay and HR Structures in SOEs*

- How other state-owned enterprises structure pay, leave, and promotion
- Cross-institutional benchmarking and best practices

Day 2: Leave, Benefits & Conduct

Session 6: Leave Rules and Conditions

- Chapter 5: Rules 23–34
- FAP, HAP, Maternity, Quarantine, Encashment, EOL, and leave registers

Session 7: Allowances and Fringe Benefits

- Chapter 6: Rules 35–42
- Honorarium, Overtime, CPF, Power Plant allowance, mobile/internet reimbursements

Session 8: Conduct, Discipline & Penalties

- Chapter 7: Rules 43–49
- Code of conduct, inquiry process, disciplinary actions

Session 9: Appeals, Suspension & Service Record

- Rules 50–55
- Appeal procedures, suspension protocols, summary proceedings

Session 10: *Disciplinary Case Study and Roleplay*

- Practical simulation of a disciplinary hearing
- Group activity: Preparing a charge sheet and defense response

Day 3: Separation, Delegation & Future Trends

Session 11: Resignation, Termination & Retirement

- Chapter 9: Rules 56–58
- Types of separation, voluntary retirement scheme (VRS), discharge process

Session 12: Medical and Compensation Benefits

- Chapter 10: Rules 59–63
- Medical reimbursements, accident compensation, special allowances

Session 13: Gratuity and Post-Retirement Benefits

- Chapter 11: Rules 64–68
- Gratuity payment, nomination process, death benefits

Session 14: Delegation of Administrative Power (DoAP)

- Interpretation of DoAP table
- Levels of authority, financial limits, practical delegation mapping

Session 15: *Policy Gaps, Reform Needs & HR Governance Trends*

- Identifying ambiguities in current rules
- Alignment with modern HR governance, gender-sensitive provisions, digitization

11. Public Procurement Act and Rules

Course Code	:	IH-CB-0044
Course Name	:	Public Procurement Act and Rules
Duration	:	04 Days
Number of Sessions	:	20
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:30 PM – 04:30 PM
Target Group	:	Officer
No. Of Participants	:	25
Course Objectives	:	To acquaint the participants with the legal framework of procurement in the public sector. To familiarize the participants with the process and standard documents for procurement of goods, works, and services. To provide a comprehensive coverage of intellectual and professional service procurement. To familiarize the participants with e-GP and other cross-cutting issues.
Evaluation Method	:	Pre-Test and Post-Test
Course Outline:		

Day-1

Session 1: Introduction to Public Procurement Framework & PPA

- Public Procurement, PPA 2006.

Session 2&3: PPR & Tender Document Preparation

- PPR
- Tender Document Preparation
- Procurement Committees and Special Procurements

Session 4&5: Procurement Policies:

- General Guidelines,
- Tender Validities and Security Deposit
- Preparation of Specifications and Maintaining Confidentiality

Day-2

Session 6: Procurement Policies:

- Tender, Proposal etc Rejection
- Tender Approval Procedure, Notification of Award and Publication

Session 7&8: Procurement Policies:

- Contract Administration and Management

Session 9: Procurement Policies:

- Maintaining Records of Procurement
- Procurement Post Review,
- Qualification of Persons
- Joint Ventures
- Conflicts of Interest

Session 10: Procurement Policies:

- Complaints and Appeals.

Day-3

Session 11-13: Methods of Procurement for Goods, Works and Physical Services and Applications (Part 1-7):

- National OTM
- National LTM
- National Two Stage method
- National Single Stage Two Envelop method
- National RFQ
- National Reverse Action
- National DPM
- National e-Government Procurement

Session 14&15: Methods of Procurement for Goods, Works and Physical Services and Applications (Part 8-9):

- International Procurement
- Framework Contracts.

Day-4

Session 16 & 17: Processing of Procurement

- Advertisement

- Pre- Qualification
- Processing of Tenders.

Session 18-20: Procurement of Intellectual and Professional Services and Miscellaneous

- Methods & Procedures
- Processing of Expressions of Interest and Proposals
- Evaluation of Proposals, Negotiations and Completion of the Process
- Misconduct and others
- Miscellaneous

12. Finance for Non-Finance Professionals

Course Code	:	IH-CB-0010
Course Name	:	Finance for Non-Finance Professionals
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:30 PM – 04:30 PM
Target Group	:	Officers
No. Of Participants	:	25
Course Objectives	:	The objective of this training course is to develop a practical understanding of accounting, financial reporting, budgeting, financing, and financial management concepts among non-finance professionals of NWPGL. The course is designed to enhance participants' ability to interpret financial statements, understand financial performance and cash flow positions, and recognize the financial implications of operational and strategic decisions within a power generation company. It also aims to familiarize participants with corporate budgeting, capital investment decisions, financing structures, financial risks, audit processes, and financial forecasting techniques relevant to NWPGL's business environment. Through practical discussions and power sector-focused
Evaluation Method	:	Pre-Test and Post-Test
Course Outline:		
Day-1		

Session–1: Introduction to Accounting and Finance

- Meaning and importance of accounting and finance
- Role of finance in organizational decision-making
- Overview of financial accounting and reporting
- Financial resources management concepts
- Financial planning, control, and business decision-making
- Importance of financial awareness for non-finance professionals
- Financial environment of NWPGL and the power sector

Session–2 and 3: Financial Reporting Framework and Financial Statements

- Purpose and objectives of financial reporting
- Components of financial statements
- Statement of Financial Position (Balance Sheet)
- Statement of Comprehensive Income (Income Statement)
- Earnings Per Share (EPS) concept
- Statement of Changes in Equity
- Significant accounting policies and disclosures

Session–4: Audit and Financial Compliance

- Overview of audit concepts and objectives
- Types of financial audits in NWPGL
- Internal audit and external audit functions
- Auditor's report and key observations
- Compliance and accountability requirements
- Internal control systems
- Governance and transparency in SOEs

Session–5: Overview of Financial Management

- Concept and scope of financial management
- Objectives of financial management
- Role of finance in power generation companies
- Financial structure and processes of NWPGL
- Financial decision-making and operational performance
- Key financial risks and control mechanisms
- Working capital management basics

Day-2**Session–6: Corporate Budgeting and Capital Budgeting**

- Importance of budgeting in organizations
- Corporate and departmental budgeting processes
- Capital budgeting concepts
- Cash flow projection techniques
- Investment appraisal methods
- Net Present Value (NPV) and Internal Rate of Return (IRR)
- Payback period and uncertainty considerations

Session–7 and 8: Corporate Financing and Power Sector Financing

- Sources of corporate financing

- Equity financing and debt financing
- Financing structure of power sector projects
- Financing challenges in Bangladesh power sector
- NWPGL financing arrangements and outlook
- Loan financing and debt obligations
- Financial sustainability considerations

Session–9 and 10: Financial Forecasting and Financial Modelling

- Fundamentals of financial forecasting
- Introduction to financial modelling
- Assumptions and projection techniques
- Revenue and cost forecasting
- Basics of financial model structures
- Financial analysis for decision-making
- Use of models in lender and management communication

13. Leadership and Organizational Development

Course Code	:	IH -CB-0002
Course Name	:	Leadership and Organizational Development
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Manager/XEN
No. Of Participants	:	27
Course Objectives	:	This leadership training program aims to develop participants' leadership mindset and enhance their ability to lead teams with vision, emotional intelligence, and strategic insight. It focuses on cultivating key leadership competencies such as communication, decision-making, team management, conflict resolution, and driving performance through influence rather than authority. The course prepares mid-to-senior managers to transition from operational managers to inspiring, strategic leaders who can guide organizations through change and uncertainty.
Evaluation Method	:	Pre-Test and Post-Test
Course Outline:		
Day 1: Leadership Excellence and Team Effectiveness Session 1: Foundations of Effective Leadership • Concepts and evolution of leadership • Leadership versus management		

- Roles and responsibilities of managers and executive engineers
- Characteristics of successful leaders

Session 2: Leadership Styles and Situational Leadership

- Contemporary leadership theories
- Situational leadership approaches
- Selecting appropriate leadership styles
- Leadership effectiveness in different workplace situations

Session 3: Strategic Thinking and Decision-Making

- Strategic thinking for managers
- Problem-solving and analytical decision-making
- Risk-based decision-making
- Managing uncertainty and complexity

Session 4: Team Leadership and Employee Motivation

- Building and leading high-performing teams
- Motivation theories and workplace application
- Delegation and empowerment techniques
- Managing team dynamics and collaboration

Session 5: Communication, Influence and Conflict Management

- Leadership communication skills
- Influencing and persuading stakeholders
- Conflict resolution techniques
- Negotiation and relationship management

Day 2: Organizational Development and Change Leadership

Session 6: Introduction to Organizational Development (OD)

- Concepts and principles of Organizational Development
- Importance of OD in organizational effectiveness
- Organizational growth and sustainability
- Role of leaders in organizational development

Session 7: Organizational Culture and Employee Engagement

- Understanding organizational culture
- Creating a positive work environment
- Employee engagement strategies
- Building trust and commitment

Session 8: Change Management and Transformational Leadership

- Organizational change and transformation
- Change management models
- Managing resistance to change
- Transformational leadership practices

Session 9: Performance Management and Organizational Excellence

- Performance management systems
- Goal setting and performance monitoring

- Key Performance Indicators (KPIs)
- Continuous improvement and operational excellence

Session 10: Innovation, Future Leadership and Organizational Sustainability

- Innovation-driven leadership
- Leading in the digital era
- Sustainability and organizational resilience
- Developing future leaders
- Personal leadership development planning

14. Utility-Scale and Rooftop Solar Plant Design Using PVsyst

Course Code	:	IH-CB-0045
Course Name	:	Utility-Scale and Rooftop Solar Plant Design Using PVsyst
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Technical Officers
No. Of Participants	:	25
Course Objectives	:	This training aims to develop participants' competency in designing and analyzing utility-scale and rooftop solar PV systems using PVsyst software. Participants will learn solar resource assessment, system sizing, component selection, and plant layout optimization. The course covers energy yield estimation, performance analysis, and loss evaluation for accurate system assessment. It also strengthens participants' ability to conduct technical feasibility studies and optimize PV system performance. Upon completion, participants will be able to design efficient and reliable solar power plants in accordance with industry standards and best practices.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day -1

Session 1 ,2 & 3: Solar Resource Assessment and Site Selection

- Solar irradiance data sources and analysis techniques
- Geographical and climatic factors affecting solar potential
- Land use considerations and shading analysis methods
- Grid connection feasibility and evacuation planning basics

Session 4 & 5: PV System Design Principles and Component Selection

- PV module technologies and performance characteristics

Day -2

Session 6, 7 & 8: PV System Design Principles and Component Selection

- Inverter types, sizing criteria and efficiency considerations
- Mounting structures, tracking systems and balance of plant
- Electrical design: string configuration, cable sizing, protection

Session 9 & 10: PV syst Software Application and Performance Modeling

- PV syst interface navigation and project setup procedures
- Meteorological data import and loss factor configuration

Day 3:

Session 11 & 12: PV syst Software Application and Performance Modeling

- System simulation, yield prediction and performance ratio calculation
- Sensitivity analysis and optimization of design parameters

Session 13, 14 & 15: Performance Monitoring and Practical Implementation

- SCADA integration for solar plant monitoring and control
- Performance analysis: actual vs. predicted energy generation
- O&M best practices and fault diagnosis techniques
- Case study: design exercise for sample utility/rooftop project

15. AI-Powered Productivity: Mastering Prompt & use of Intelligent Tools for Professional Excellence

Course Code	:	IH-CB-0025
Course Name	:	AI-Powered Productivity: Mastering Prompt & use of Intelligent Tools for Professional Excellence
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	All Officers
No. Of Participants	:	25

Course Objectives	:	To equip participants with the knowledge and practical skills to effectively use AI-powered tools and prompt engineering techniques for enhancing workplace productivity.
Evaluation Method	:	Pre-Test and Post-Test
Course Outline:		
Day -1		
Session 1, 2 & 3: AI Fundamentals and Professional Application Landscape		
- Understanding generative AI, LLMs and their capabilities in workplace - Ethical considerations, data privacy and responsible AI use policies - Overview of AI tools relevant to power sector professionals - Setting up accounts and basic navigation of selected platforms		
Session 4 & 5: Prompt Engineering Techniques for Professional Tasks		
Principles of effective prompt design: clarity, context, constraints		
Day -2		
Session 6, 7& 8: Prompt Engineering Techniques for Professional Tasks		
- Task-specific prompts: report drafting, data analysis, presentation creation - Iterative refinement and prompt chaining for complex outputs - Avoiding common pitfalls: hallucinations, bias, over-reliance		
Session 9 & 10: Practical Integration and Workflow Optimization		
- Automating routine tasks: email drafting, meeting summaries, research - Enhancing technical documentation and report preparation with AI assistance - Using AI for data visualization, chart generation and presentation design - Hands-on exercise: applying AI tools to sample NWPGL work scenarios		

16. Advanced MS Office Applications

Course Code	:	IH-CB-0046
Course Name	:	Advanced MS Office Applications
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:30 PM – 04:30 PM
Target Group	:	Officers

No. Of Participants	:	25
Course Objectives	:	The objective of this training course is to enhance the professional capabilities of NWPGL executives and engineers in utilizing advanced Microsoft Office applications and developing robust financial models for power projects. The program is designed to strengthen participants' skills in advanced Excel-based financial analysis, project evaluation, budgeting, forecasting, data management, reporting, and presentation techniques. Through practical exercises and real-life case studies from the power sector, participants will learn to prepare and analyze financial models for generation projects, assess project viability, evaluate financing options, conduct sensitivity and risk analyses, and present decision-support information effectively. The course will enable participants to improve operational efficiency, support strategic decision-making, and strengthen project planning, monitoring, and management practices within the energy sector.
Evaluation Method	:	Pre-Test and Post-Test
Course Outline:		
Day-1		
Session 1: Introduction to Microsoft Office and Digital Productivity • Overview of Microsoft 365 applications • File management and cloud storage • Productivity enhancement techniques • Digital workplace best practices Session 2: Microsoft Word – Basic Document Preparation • Document creation and formatting • Page setup and layouts • Tables, images, and graphics • Headers, footers, and page numbering Session 3: Microsoft Word – Advanced Reporting Tools • Styles and templates • Table of Contents and indexing • Cross-referencing and citations • Mail Merge for bulk communication Session 4: Microsoft PowerPoint – Fundamentals of Professional Presentations • Slide design principles • Themes and templates • SmartArt and graphics • Effective presentation techniques Session 5: Microsoft PowerPoint – Advanced Business Presentations		

- Slide Master and custom templates
- Data visualization techniques
- Animation and multimedia integration
- Executive-level presentation development

Day-2

Session 6: Microsoft Excel Fundamentals

- Workbook and worksheet management
- Cell formatting and data organization
- Basic formulas and functions
- Sorting and filtering

Session 7: Intermediate Excel Functions

- Logical functions (IF, AND, OR)
- Text and date functions
- Financial functions
- Data validation techniques

Session 8: Advanced Excel Functions and Data Management

- XLOOKUP, INDEX-MATCH
- Nested formulas
- Conditional formatting
- Error checking and auditing

Session 9: Pivot Tables, Pivot Charts and Dashboards

- Creating Pivot Tables
- Interactive reporting
- Slicers and timelines
- Dashboard development

Session 10: Excel Automation and Business Intelligence Tools

- Macro recording and automation
- Introduction to VBA concepts
- Power Query fundamentals
- Automated reporting systems

17. Public Sector Project Management, DPP Preparation and Approval including PPS & other software

Course Code	:	IH-CB-0047
Course Name	:	Public Sector Project Management, DPP Preparation and Approval including PPS & other software
Duration	:	05 Days
Number of Sessions	:	25

Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Technical and Finance Officers
No. Of Participants	:	25
Course Objectives	:	This training aims to develop participants' knowledge of government project formulation and the project approval process. Participants will learn to prepare high-quality Development Project Proposals (DPPs) in accordance with government guidelines. The course provides practical skills in using the Project Processing System (PPS) and Project Management Information System (PMIS). It also enhances participants' ability to prepare, submit, monitor, and manage development projects efficiently. Upon completion, participants will be able to apply government procedures and digital tools effectively throughout the project lifecycle.
Evaluation Method	:	Pre-Test and Post-Test
Course Outline:		
Day -1		
Session 1, 2 & 3: Project Conceptualization and Feasibility Framework		
• Project identification and alignment with sectoral priorities • Pre-feasibility study components and screening criteria		
Session 4 & 5: Project Conceptualization and Feasibility Framework		
• Stakeholder consultation and social environmental considerations • Risk assessment and mitigation planning at concept stage		
Day -2		
Session 6 & 7: Development Project Proposal (DPP) Structure and Guidelines		
• ECNEC and related committee review procedures • Documentation requirements and submission protocols		
Session 8, 9 & 10: Development Project Proposal (DPP) Structure and Guidelines		
• Technical component: scope, specifications, implementation plan • Financial component: cost estimation, funding sources, cash flow • Institutional component: organizational setup and capacity building		
Day 3:		
Session 11, 12 & 13: Approval Process and Regulatory Compliance		

- ECNEC and related committee review procedures
- Documentation requirements and submission protocols

Session 14 & 15 : Approval Process and Regulatory Compliance

- Inter-ministerial coordination and clearance mechanisms
- Strategies for timely approval

Day 4:

Session 16, 17 & 18: Software Tools: PPS and PMIS Application

- Project Proposal System (PPS) navigation and data entry
- Project Monitoring Information System (PMIS) reporting features

Session 19 & 20: Software Tools: PPS and PMIS Application

- Progress tracking, milestone reporting and variance analysis
- Hands-on exercise: preparing sample DPP using software

Day 5:

Session 21: Implementation Planning and Monitoring Framework

- Work breakdown structure and critical path methodology

Session 22: Implementation Planning and Monitoring Framework

- Procurement planning and contract management essentials

Session 23: Implementation Planning and Monitoring Framework

- Monitoring indicators, reporting formats and review mechanisms

Session 24 & 25: Implementation Planning and Monitoring Framework

- Case study review and group presentation on sample project

18. Planning, Monitoring and Control of Project & Specialized Maintenance of Plants using MS Project

Course Code	:	IH-CB-0049
Course Name	:	Planning, Monitoring and Control of Project & Specialized Maintenance of Plants using MS Project
Duration	:	03 Days
Number of Sessions	:	15

Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Technical and Finance Officers
No. Of Participants	:	25
Course Objectives	:	This training aims to develop participants' skills in planning, scheduling, monitoring, and controlling the scope, time, and cost of projects or major plant maintenance activities using Microsoft Project (MS Project). Participants will learn to prepare project schedules, allocate resources, track progress, and monitor performance effectively. Upon completion, they will be able to manage projects efficiently to ensure timely completion and optimal resource utilization.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day -1

Session 1 ,2 & 3: Project Management Fundamentals and MS Project Setup

- Project lifecycle phases and planning principles
- MS Project interface, file management and customization
- Calendar setup, resource definition and baseline concepts
- Best practices for project file organization and version control

Session 4 & 5: Scope Definition and Work Breakdown Structure

- Scope statement development and deliverable identification
- Creating hierarchical WBS and task decomposition techniques
- Task dependencies: finish-to-start, start-to-start relationships
- Milestone identification and critical deliverable mapping

Day -2

Session 6, 7 & 8: Schedule Development and Resource Allocation

- Duration estimation techniques and effort-driven scheduling
- Resource assignment, leveling and over-allocation resolution
- Critical path method and float analysis for schedule optimization
- Baseline setting and change control procedures

Session 9 & 10: Cost Management and Progress Tracking

- Cost resource setup and budget allocation methods
- Earned value management concepts and performance metrics
- Progress updating techniques and variance analysis

- Reporting features: Gantt charts, dashboards, custom views

Day 3:

Session 11, 12 & 13: Advanced Applications and Practical Workshop

- Multi-project management and resource pooling strategies
- Integration with other tools: Excel, SharePoint, Power BI
- Risk register integration and contingency planning in MS Project

Session 14 & 15: Advanced Applications and Practical Workshop

- Hands-on workshop: developing schedule for plant maintenance project

19. Strategic Leadership for organizational Planning and Management

Course Code	:	IH-CB-0050
Course Name	:	Strategic Leadership for organizational Planning and Management
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	DGM and Above
No. Of Participants	:	31
Course Objectives	:	This training program aims to enhance participants' strategic thinking capabilities and equip them with practical tools and methodologies for effective strategic planning and execution. The course helps senior managers align departmental goals with organizational vision, analyze internal and external environments, design strategic initiatives, and monitor performance through measurable KPIs
Evaluation Method	:	Pre-Test and Post-Test + Group Presentation + Strategy Simulation

Course Outline:

Day 1: Strategic Leadership and Organizational Planning

Session 1: Strategic Leadership in the Contemporary Business Environment

- Evolution of strategic leadership
- Leadership versus management
- Roles and responsibilities of strategic leaders
- Emerging leadership challenges in a dynamic environment

Session 2: Vision, Mission and Strategic Direction

- Developing a compelling organizational vision
- Aligning mission with organizational objectives
- Strategic leadership in goal setting
- Translating vision into actionable strategies

Session 3: Strategic Planning Frameworks and Tools

- Strategic planning process
- SWOT, PESTLE and stakeholder analysis
- Strategic priority setting
- Scenario planning and strategic foresight

Session 4: Strategic Decision-Making and Problem Solving

- Executive decision-making models
- Evidence-based decision-making
- Managing uncertainty and complexity
- Strategic problem-solving techniques

Session 5: Corporate Governance and Ethical Leadership

- Principles of corporate governance
- Board-management relationship
- Transparency, accountability and integrity
- Ethical leadership and organizational trust

Day 2: Organizational Management, Transformation and Sustainability

Session 6: Performance Management and Organizational Excellence

- Strategic performance management systems
- Key Performance Indicators (KPIs)
- Balanced Scorecard approach
- Driving organizational excellence

Session 7: Change Leadership and Organizational Transformation

- Leading organizational change
- Managing resistance to change
- Transformation strategies
- Building agile and resilient organizations

Session 8: Risk Management and Strategic Resilience

- Enterprise Risk Management (ERM)
- Strategic and operational risk identification
- Crisis leadership and business continuity
- Building organizational resilience

Session 9: Stakeholder Management and Strategic Communication

- Stakeholder identification and engagement
- Executive communication strategies
- Managing internal and external relationships
- Negotiation and influence for leaders

Session 10: Future Leadership and Sustainable Organizational Growth

- Leadership in the digital era
- Innovation-driven leadership
- Sustainability and ESG considerations
- Building future-ready organizations
- Executive leadership action planning

20. Power Sector Overview, Generation Technologies, Fuel Choice & Sourcing, Transition Pathway in Bangladesh

Course Code	:	IH-CB-0051
Course Name	:	Power Sector Overview, Generation Technologies, Fuel Choice & Sourcing, Transition Pathway in Bangladesh
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Non-Technical Officers
No. Of Participants	:	25
Course Objectives	:	This training aims to provide participants with a comprehensive understanding of Bangladesh's power sector, including generation technologies, fuel sourcing, and the energy transition pathway. Participants will gain practical insights into power plant operations through a plant visit and understand key technical and commercial aspects of power generation. Upon completion, they will be able to support informed decision-making and contribute effectively to the sustainable development of the power sector.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day -1

Session 1 & 2: Bangladesh Power Sector Landscape and Governance

- Overview of power generation, transmission and distribution structure
- Key institutions: BPDB, PGCB, BERC, SREDA, NWPGCL roles and responsibilities

Session 3: Bangladesh Power Sector Landscape and Governance

- Regulatory framework and policy environment in Bangladesh

Session 4 & 5: Generation Technology Options and Selection Criteria

- Conventional thermal: coal, gas, oil-fired plant characteristics
- Combined cycle and simple cycle gas turbine

Day -2

Session 6 & 7: Generation Technology Options and Selection Criteria

- Renewable technologies: solar, wind, biomass potential and limitations

Session 8 & 9: Fuel Sourcing, Logistics and Energy Security

- Domestic gas resources and import dependency challenges
- Coal sourcing strategies and supply chain management
- LNG import infrastructure and regasification considerations
- Fuel diversification and energy transition planning approaches

Session 10: Energy Transition Pathway and Practical Exposure

- Bangladesh Master Plan objectives and renewable energy targets
- Just transition considerations and workforce development needs

Day 3:

Session 11, 12, 13,14 &15: Energy Transition Pathway and Practical Exposure

- Plant visit: observing operational practices and technology applications

21. Strategic Human Resource Management and Organizational Development

Course Code	:	IH-CB-0052
Course Name	:	Strategic Human Resource Management and Organizational Development
Duration	:	03 Days
Number of Sessions	:	20
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Officer
No. Of Participants	:	25

Course Objectives	:	This course is designed to strengthen participants' knowledge and competencies in modern human resource management practices, service rules administration, and organizational governance. The course aims to enhance skills in HR policy formulation and implementation, grievance handling, leadership and managerial competencies, conflict resolution, negotiation skills, gender equity and workplace inclusivity, crisis management, HR readiness, delegation of administrative powers, and multinational company HR practices for effective organizational development and people management.
Evaluation Method	:	Pre-Test and Post-Test
Course Outline:		
Day 1: Core Human Resource Management Practices Session 1: Introduction to Modern Human Resource Management • Evolution and scope of Human Resource Management • Strategic importance of HRM in organizations • Functions and responsibilities of HR professionals • HRM vs Personnel Management • HR business partnering and organizational effectiveness • Contemporary HR challenges and opportunities Session 2: Human Resource Planning and Job Analysis • Human resource planning process • Workforce forecasting and manpower planning • Job analysis methods and techniques • Preparing job descriptions and job specifications • Competency mapping and role profiling • Succession and replacement planning Session 3: Recruitment, Selection and Onboarding • Recruitment strategies and sourcing methods • Employer branding and talent attraction • Screening and shortlisting techniques • Interviewing methods and selection tools • Competency-based recruitment practices • Employee onboarding and orientation programs Session 4: Compensation, Benefits and Reward Management • Principles of compensation management • Salary structure and pay administration • Incentive schemes and reward systems • Employee benefits and welfare programs • Compensation benchmarking and internal equity		

- Strategic compensation for employee retention

Session 5: Employee Relations and Workplace Communication

- Employee relations management
- Workplace communication strategies
- Employee engagement and motivation
- Managing workplace behavior and discipline
- Organizational culture and teamwork
- Building trust and collaboration at work

Day 2: Talent Management, Leadership and HR Operations

Session 6: Leadership and Managerial Competencies for HR Professionals

- Leadership styles and management approaches
- HR leadership competencies
- Emotional intelligence and people management
- Decision-making and problem-solving techniques
- Team leadership and employee motivation
- Strategic leadership in HRM

Session 7: Performance Management System

- Performance management cycle
- Goal setting and Key Performance Indicators, 360 Degree, Six Sigma, Balance Scorecard, TQM.
- Performance appraisal methods and tools
- Feedback and coaching techniques
- Managing poor performance
- Linking performance with rewards and development

Session 8: Training, Learning and Career Development

- Training Needs Assessment (TNA)
- Designing employee training programs
- Learning and development strategies
- Career planning and succession management
- Coaching and mentoring techniques
- Building a learning organization

Sessions 9–10: Grievance Handling, Conflict Management and HR Compliance

- Employee grievance handling procedures
- Conflict management and mediation techniques
- Workplace negotiation skills
- Disciplinary procedures and inquiry management
- Professional ethics and workplace conduct

- HR policies, compliance, and documentation

Day 3: Strategic and Future-Oriented HRM Practices

Session 11: Diversity, Equity and Inclusion (DEI)

- Diversity and inclusion concepts
- Gender-sensitive HR policies
- Equal opportunity and fair treatment
- Inclusive workplace practices
- Preventing workplace discrimination and harassment
- Building respectful workplace culture

Session 12: Employee Wellbeing and Workplace Safety

- Employee wellbeing and mental health
- Occupational health and workplace safety
- Work-life balance initiatives
- Stress management strategies
- HR support during emergencies and crises
- Employee assistance programs

Session 13: Separation, Retention and Succession Management

- Employee turnover and retention strategies
- Exit interview and separation management
- Retirement planning and employee transition
- Succession planning frameworks
- Talent retention and career continuity
- Knowledge transfer management

Session 14: HR Policies and Organizational Governance

- HR policy formulation and implementation
- HR governance and accountability
- Ethics and transparency in HR administration
- HR audit and risk management
- Organizational culture and governance practices
- Aligning HR policies with strategic goals

Session 15: Strategic HRM and Organizational Development

- Strategic Human Resource Management (SHRM)
- HRM's role in organizational development
- Change management and organizational transformation
- Building high-performance organizational culture
- Employee engagement strategies
- HR metrics and organizational effectiveness

Day 4: Multinational HR Practices and Strategic HR Development

Session 16: Introduction to Multinational Company HR Practices

- Characteristics of multinational organizations
- Global HR management concepts and structures
- International workforce management
- HR challenges in multinational companies

Session 17: Talent Acquisition and Performance Management

- Modern recruitment and selection techniques
- Competency-based hiring and talent acquisition
- Employee performance appraisal systems
- Succession planning and talent retention strategies

Session 18: Training, Learning and Organizational Development

- Training needs assessment techniques
- Employee learning and development strategies
- Capacity building and career development planning
- Organizational learning culture and continuous improvement

Session 19: Digital HR Management and Future HR Trends

- HR information systems (HRIS) and digital HR practices
- HR analytics and workforce data management
- Digital transformation in HR operations
- Emerging trends and technologies in HR management

Session 20: HR Reform, Policy Gaps and Strategic Governance

- Identifying policy gaps and administrative challenges
- Modernization of HR governance frameworks
- Gender-sensitive and inclusive HR reforms
- Strategic HR planning for future-ready organizations

22. Power Sector related Policies and Guidelines (Master Plan, SDG, NDC-3, RE Policy, Electricity Act, etc.)

Course Code	:	IH-CB-0054
Course Name	:	Power Sector related Policies and Guidelines (Master Plan, SDG, NDC-3, RE Policy, Electricity Act, etc.)
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	All Officers
No. Of Participants	:	25
Course Objectives	:	To provide participants with a comprehensive understanding of the institutional framework, governance structure, and recent policy initiatives shaping the Bangladesh power sector.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day -1

Session 1, 2 & 3: Power Sector Governance and Institutional Architecture

- Evolution of Bangladesh power sector reforms and restructuring
- Roles and mandates: Ministry, BPDB, PGCB, BERC, NWPGL, REB
- Regulatory functions: licensing, tariff approval, dispute resolution
- Coordination mechanisms among sector institutions

Session 4 & 5: Strategic Plans and Policy Frameworks

- Bangladesh Power Sector Master Plan objectives and implementation status
- Sustainable Development Goals alignment and energy access targets
- Nationally Determined Contributions (NDC-3) and climate commitments
- Renewable Energy Policy incentives and implementation challenges

Day -2

Session 6, 7& 8: Recent Policy Developments and Reform Initiatives

- Private sector participation frameworks and IPP policy updates
- Grid code revisions and renewable integration guidelines
- Energy efficiency regulations and demand side management policies
- Digitalization initiatives and smart grid development roadmap

Session 9 & 10: Compliance, Reporting and Practical Application

- Regulatory reporting obligations and submission timelines
- Audit requirements and performance monitoring frameworks
- Sample exercise: analysing BERC guidelines and policy documents
- Group discussion: policy implications for NWPGL operations and planning

23. Tender Document Preparation (National and International)

Course Code	:	IH-CB-0055
Course Name	:	Tender Document Preparation (National
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:30 PM – 04:30 PM
Target Group	:	Officer
No. Of Participants	:	25
Course Objectives	:	To get a clear idea on Tender Document preparation and Evaluation for Goods, Works and Services in National and International Arena.
Evaluation Method	:	Pre-Test and Post-Test
Course Outline:		
Day-1		
Session 1: Introduction to Tender Documents & Types & Limits of Tender documents		
• Standard Tender Document (STD) • Types of STD • Selection of STD • Advertisement		
Session 2 &3: ITT Ssection of STD for Goods and Works		
• General Instruction • Tender Document • Qualification Criteria • Tender Document Preparation • Tender Submission • Opening & Evaluation • Contract Award		
Session 4&5: GCC section of STD for Goods and Works		
• Definitions • Interpretation • Eligibility • Subcontracting		

- Contract Price, Term of Payment
- Insurance, performance security, inspection & testing
- LD, Termination, Amendment
- Settlement of Dispute

Day-2

Session 6: TDS section of STD for Goods and Works

- General Instruction
- Tender Document
- Qualification Criteria
- Tender Document Preparation
- Tender Submission
- Opening & Evaluation
- Contract Award

Session 7: PCC section of STD for Goods and Works

- Specific condition of Contract

Session 8: Bill of Quantities

- Technical Specification
- Unit
- Quantity
- Price

Session 9 & 10: Tender Document for Physical Service

- TDS
- PCC
- Outsourcing policy

Day-3

Session 11: Incoterms

- Introduction to Incoterms
- Categories of Incoterms
- Commonly Used Incoterms in Procurement
- Cost, Risk & Responsibility Transfer

Session 12: Estimate

- Technical Specification
- Unit
- Unit Price
- Incoterms
- Delivery Days
- Grand Total
- Transportation
- Risk
- Payment method

Session: 13 & 14: International OTM

- Preparation of Tender Documents for Goods
- Preparation of Tender Documents for Works
- Preparation of Tender Documents for Services
- Insurance
- SRO
- Customs Clearance
- Import permit

Session 15: Risks

- Common tendering mistakes
- Collusion and fraud risks
- Ethical concerns

24. Training on Letter of Credit (LC) and its application, Insurance & Customs Clearance

Course Code	:	IH-CB-0056
Course Name	:	Training on Letter of Credit (LC) and its application, Insurance & Customs Clearance
Duration	:	03 day
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:30 PM – 04:30 PM
Target Group	:	Officer
No. Of Participants	:	25
Course Objectives	:	To learn the steps of LC issuance and LC management in detail.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day-1

Session 1: Fundamentals of Letter of Credit (LC)

- Introduction to Letter of Credit
- Parties Involved in LC
- Basic LC Workflow
- Rules and regulations of LC (UCP, UCC etc.)
- Rules and regulations of BB.

Session 2 & 3: Types of LC and Opening Procedure

- Types of LC

- Documents Required for Opening LC
- LC Opening Procedure
- Bank Charges & Cost Components
- LC Approval.

Session 4: LC Documentation, Shipment & Settlement

- Shipping Documents Under LC
- Document Examination by Bank
- Payment Process
- LC disputes.

Session 5: Practical Application, Risks & Problem Solving

- Practical Application
- Risks & Problem Solving
- Risks in LC Transactions
- LC Amendment Process
- Best Practices.

Day-2

Session 6 & 7: Fundamentals of Insurance

- Laws of Insurance, Introduction to Insurance
- Basic Principles of Insurance
- Key Insurance Terms
- Insurance Market Participants.

Session 8: Types of Insurance and Organizational Applications

- Personal Insurance
- Property & Asset Insurance
- Liability Insurance, Marine / Transit Insurance
- Organizational Need Areas.

Session 9: Policy Management, Premium & Claims

- Policy Selection & Underwriting
- Premium Determination Factors
- Claims Management Process
- Renewal & Record Keeping.

Session 10: Practical Application, Risks & Problem Solving

- Common Exclusions & Coverage Gaps Insurance in Contracts & Procurement,
- Fraud Prevention & Internal Controls
- Best Practices.

Day-3

Session 11 & 12: Fundamentals of Customs Clearance

- Introduction to Customs Clearance
- Laws regarding custom clearance
- Stakeholders Involved

- Basic Import Clearance Flow.

Session 13 & 14: Document Vs Time, Duties & Taxes

- Import Documents Required
- Customs Declaration Documents
- Duties & Taxes
- Time & Cost Control
- HS Code Classification Basics.

Session 15: Financial Aspects & Penalties, Special Cases, Compliance, Audit

- Port / Airport Clearance Operations
- Examination & Inspection
- Working with C&F Agent
- Customs Risks & Penalties.
- Special Import Cases
- Audit & Record Keeping
- Best Practices.

25. Professional Excellence in Office Management & Stress Management

Course Code	: IH-CB-0057
Course Name	: Professional Excellence in Office Management, Stress Management and Workplace Productivity
Duration	: 02 Days
Number of Sessions	: 10
Session Plan	: Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	: All Officers (XEN and Above)
No. Of Participants	: 25
Course Objectives	: This course is designed to enhance participants' professional efficiency and workplace effectiveness by developing skills in stress management, motivation, task prioritization, time management, grievance management, office administration, and work-life balance. The course aims to improve productivity, emotional resilience, communication, and professional decision-making in administrative and corporate environments.
Evaluation Method	: Pre-Test and Post-Test
Course Outline:	
Day 1: Professional Excellence in Office Management Session 1: Modern Office Management for Senior Executives • Contemporary office management concepts	

- Roles and responsibilities of senior officers
- Creating an efficient and productive work environment
- Challenges of modern office administration

Session 2: Strategic Time Management and Prioritization

- Managing competing priorities
- Time management frameworks for executives
- Delegation and workload distribution
- Eliminating productivity barriers

Session 3: Effective Communication and Executive Correspondence

- Professional communication techniques
- Executive briefing and reporting
- Managing meetings effectively
- Communication during critical situations

Session 4: Leadership, Decision-Making and Problem Solving

- Leadership responsibilities in office management
- Decision-making under pressure
- Analytical and strategic thinking
- Problem-solving tools for managers

Session 5: Building High-Performance Teams and Workplace Culture

- Team effectiveness and collaboration
- Motivation and employee engagement
- Managing workplace diversity
- Creating a culture of accountability and excellence

Day 2: Stress Management, Emotional Intelligence and Personal Effectiveness

Session 6: Understanding Workplace Stress and Burnout

- Nature and causes of occupational stress
- Identifying stress indicators
- Stress and organizational performance
- Burnout prevention strategies

Session 7: Emotional Intelligence for Effective Leadership

- Components of emotional intelligence
- Self-awareness and self-regulation
- Empathy and relationship management
- Emotional intelligence in leadership

Session 8: Stress Management Techniques for Executives

- Cognitive and behavioral stress management approaches
- Mindfulness and focus techniques
- Managing pressure and uncertainty
- Developing personal resilience

Session 9: Work-Life Balance and Personal Well-Being

- Balancing professional and personal responsibilities
- Healthy lifestyle practices for executives

- Managing digital overload and workplace demands
- Sustainable productivity habits

Session 10: Executive Resilience and Peak Performance

- Building resilience in leadership roles
- Managing crises and organizational pressure
- Maintaining motivation and optimism
- Developing a personal action plan for professional excellence

26. Public Private Partnership (PPP): Inception to Implementation

Course Code	:	IH-CB-0073
Course Name	:	Public Private Partnership (PPP): Inception to Implementation
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Officers
No. Of Participants	:	25
Course Objectives	:	To equip participants with the knowledge and practical understanding of Public Private Partnership (PPP) concepts, legal framework, project development process, procurement, financing, implementation, contract management and monitoring for successful delivery of infrastructure projects.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day-1

Session 1, 2 & 3: Introduction to Public Private Partnership (PPP)

- Concept, evolution and objectives of PPP
- Importance of PPP in infrastructure development
- PPP models (BOT, BOOT, DBFO, BOO, Concession, Lease, Management Contract)
- Benefits, limitations and common misconceptions of PPP
- PPP practices in Bangladesh and international perspectives

Session 4 & 5: PPP Legal and Institutional Framework

- PPP Policy and Amended PPP Act 2015
- Roles and responsibilities of PPP Authority and implementing agencies
- Public Procurement framework applicable to PPP
- Governance, transparency and regulatory compliance
- Institutional arrangements for PPP implementation

Day-2

Session 6, 7 & 8: PPP Project Identification and Development

- Identification and selection of viable PPP projects
- Project screening and prioritization techniques
- Feasibility Study, Value for Money (VfM) and affordability analysis
- Risk identification and allocation principles
- Role of Transaction Advisors and project preparation activities

Session 9 & 10: PPP Procurement and Financial Structuring

- PPP Procurement Guidelines and procurement stages
- Competitive bidding and Unsolicited Proposal Guidelines
- Bid evaluation and private partner selection strategies
- Project financing concepts (Equity, Debt and Blended Finance)
- Financial evaluation using IRR, NPV and Discounted Cash Flow (DCF)

Day-3

Session 11, 12 & 13: PPP Contract Management and Project Implementation

- Financial Close and Commercial Close
- Contract negotiation and agreement management
- Performance monitoring and Key Performance Indicators (KPIs)
- Contract variations, dispute resolution and termination mechanisms
- Stakeholder engagement and communication strategies

Session 14 & 15: Monitoring, Case Studies and Best Practices

- Monitoring PPP project operations throughout the project lifecycle
- Government support mechanisms (Viability Gap Funding, Guarantees and Subsidies)
- Role of Development Finance Institutions (DFIs) and Multilateral Development Banks

- Case studies of successful and challenging PPP projects in Bangladesh and internationally
- Lessons learned, critical success factors and implementation best practices

27. কর্মক্ষেত্রে আচরণ, পেশাদারিত্ব, শিষ্টাচার ও নৈতিকতা

কোর্স কোড	:	IH-CB-0040
কোর্সের নাম	:	কর্মক্ষেত্রে আচরণ, পেশাদারিত্ব, শিষ্টাচার ও নৈতিকতা
কোর্সের মেয়াদ	:	০২ দিন।
সেশন	:	১০ টি। [প্রতি সেশন = ১ ঘণ্টা]
সেশন প্ল্যান	:	১ম সেশন=০৯.৩০-১০.৩০ ঘটিকা ২য় সেশন= ১০.৫০-১১.৫০ ঘটিকা ৩য় সেশন=১২.০০-০১.০০ ঘটিকা ৪র্থ সেশন ০২.৩০-০৩.৩০ ঘটিকা ৫ম সেশন ০৩.৪০-০৪.৪০ ঘটিকা
টার্গেট গ্রুপ	:	অফিস সহায়ক।
অংশগ্রহণকারীর সংখ্যা	:	২৫ জন।
কোর্সের উদ্দেশ্য	:	কর্মচারীদের কর্মক্ষেত্রে পেশাদার আচরণ, শিষ্টাচার, নৈতিকতা, আন্তঃব্যক্তিক যোগাযোগ, দায়িত্ববোধ এবং ইতিবাচক কর্মসংস্কৃতি গড়ে তোলার জন্য প্রয়োজনীয় জ্ঞান ও দক্ষতা প্রদান করা।
মূল্যায়ন প্রক্রিয়া	:	প্রি-টেস্ট ও পোস্ট টেস্ট

কোর্স আউটলাইন :

প্রথম দিন: পেশাদারিত্ব ও কর্মক্ষেত্রে আচরণ

সেশন ১: কর্মক্ষেত্রে পেশাদারিত্বের মৌলিক ধারণা

- পেশাদারিত্বের অর্থ ও গুরুত্ব
- একজন আদর্শ কর্মচারীর বৈশিষ্ট্য
- কর্মক্ষেত্রে দায়িত্ববোধ ও জবাবদিহিতা
- প্রতিষ্ঠানের ভাবমূর্তি রক্ষায় কর্মচারীর ভূমিকা

সেশন ২: অফিস শিষ্টাচার ও কর্পোরেট আচরণ

- অফিসে ভদ্রতা ও সৌজন্যবোধ
- সহকর্মী ও উর্ধ্বতন কর্মকর্তার সাথে আচরণ
- ড্রেস কোড ও ব্যক্তিগত উপস্থাপনা
- কর্মক্ষেত্রে ইতিবাচক আচরণের চর্চা

সেশন ৩: কার্যকর যোগাযোগ দক্ষতা

- মৌখিক ও লিখিত যোগাযোগ
- সক্রিয়ভাবে শোনা (Active Listening)
- যোগাযোগে ভুল বোঝাবুঝি এড়ানোর কৌশল
- পেশাগত যোগাযোগের নীতিমালা

সেশন ৪: দলগত কাজ ও আন্তঃব্যক্তিক সম্পর্ক

- টিমওয়ার্কের গুরুত্ব
- পারস্পরিক শ্রদ্ধাবোধ ও সহযোগিতা
- কর্মক্ষেত্রে সম্পর্ক উন্নয়ন
- বৈচিত্র্যময় কর্মপরিবেশে কাজের কৌশল

সেশন ৫: সময় ব্যবস্থাপনা ও কর্মশৃঙ্খলা

- সময়ানুবর্তিতার গুরুত্ব
- কর্মপরিকল্পনা ও অগ্রাধিকার নির্ধারণ
- কর্মস্থলের শৃঙ্খলা বজায় রাখা
- উৎপাদনশীলতা বৃদ্ধির কৌশল

দ্বিতীয় দিন: নৈতিকতা, সততা ও ইতিবাচক কর্মসংস্কৃতি

সেশন ৬: কর্মক্ষেত্রে নৈতিকতা ও সততা

- নৈতিকতার মৌলিক ধারণা
- সততা, স্বচ্ছতা ও জবাবদিহিতা
- স্বার্থের সংঘাত (Conflict of Interest)
- নৈতিক সিদ্ধান্ত গ্রহণ

সেশন ৭: দুর্নীতি প্রতিরোধ ও সুশাসন

- দুর্নীতির প্রভাব
- সুশাসনের মূলনীতি
- প্রতিষ্ঠানের সম্পদের সঠিক ব্যবহার
- জবাবদিহিমূলক আচরণ

সেশন ৮: কর্মক্ষেত্রে জেভার সচেতনতা, হয়রানি, বৈষম্য ও পেশাগত আচরণ

- কর্মক্ষেত্রে জেভার সচেতনতা
- কর্মক্ষেত্রে হয়রানির ধরন
- বৈষম্য প্রতিরোধ
- সম্মানজনক কর্মপরিবেশ নিশ্চিতকরণ
- অভিযোগ ব্যবস্থাপনা সম্পর্কে ধারণা

সেশন ৯: মানসিক চাপ মোকাবিলা ও ইতিবাচক মনোভাব

- কর্মক্ষেত্রে সাধারণ চাপের উৎস
- ইতিবাচক মানসিকতা গঠন
- আবেগ নিয়ন্ত্রণ ও আত্মব্যবস্থাপনা
- কর্মক্ষেত্রে স্থিতিস্থাপকতা (Resilience)

সেশন ১০: কর্মক্ষেত্রে জেভার সচেতনতা, হয়রানি, বৈষম্য ও পেশাগত আচরণ

- কর্মক্ষেত্রে জেভার সচেতনতা
- কর্মক্ষেত্রে হয়রানির ধরন

• বৈষম্য প্রতিরোধ • সম্মানজনক কর্মপরিবেশ নিশ্চিতকরণ
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28. আধুনিক ড্রাইভিং কলাকৌশল ও সড়ক আইন

কোর্স কোড	:	IH-CB-0020
কোর্সের নাম	:	আধুনিক ড্রাইভিং কলাকৌশল ও সড়ক আইন
কোর্সের মেয়াদ	:	০৩ দিন।
সেশন	:	১৫ টি। [প্রতি সেশন = ১ ঘণ্টা]
সেশন প্ল্যান	:	১ম সেশন=০৯.৩০-১০.৩০ ঘটিকা ২য় সেশন= ১০.৫০-১১.৫০ ঘটিকা ৩য় সেশন=১২.০০-০১.০০ ঘটিকা ৪র্থ সেশন ০২.৩০-০৩.৩০ ঘটিকা ৫ম সেশন ০৩.৪০-০৪.৪০ ঘটিকা
টার্গেট গ্রুপ	:	ড্রাইভার।
অংশগ্রহণকারীর সংখ্যা	:	২৫ জন।
কোর্সের উদ্দেশ্য	:	চালকদের মৌলিক ড্রাইভিং দক্ষতা, নিরাপত্তা সচেতনতা এবং সড়ক আইনের প্রাথমিক ধারণা, যান্ত্রিক জ্ঞান, স্বাস্থ্য সচেতনতা, জরুরি পরিস্থিতি ব্যবস্থাপনা, আইনি দিক সম্পর্কে বিস্তারিত ধারণা প্রদান এবং আচরণগত উন্নয়ন।
মূল্যায়ন প্রক্রিয়া	:	প্রি-টেস্ট ও পোস্ট টেস্ট

কোর্স আউটলাইন :

প্রথম দিন: নিরাপদ ড্রাইভিং এর ভিত্তি ও প্রাথমিক নিয়মাবলী

প্রথম দিন: চালকের দক্ষতা, দুর্ঘটনা প্রতিরোধ ও গাড়ি পরিচালনা

সেশন ১: চালকের নমনীয় দক্ষতা ও আদর্শ গুণাবলী

- চালকের নমনীয় দক্ষতা (যোগাযোগ, ধৈর্য, মানসিক চাপ ব্যবস্থাপনা)
- অন্যান্য সড়ক ব্যবহারকারীদের প্রতি শ্রদ্ধাশীল মনোভাব
- আদর্শ চালকের গুণাবলী: দায়িত্বশীলতা, সততা, শৃঙ্খলা, পরিস্থিতি মূল্যায়ন

সেশন ২: দুর্ঘটনার কারণ ও আত্মরক্ষামূলক ড্রাইভিং

- দুর্ঘটনার কারণ: চালকের ভুল, সড়ক ত্রুটি, যানবাহন ত্রুটি, পরিবেশগত প্রভাব
- আত্মরক্ষামূলক ড্রাইভিং কৌশল: পরিস্থিতি সচেতনতা, নিরাপদ দূরত্ব, জরুরি প্রস্তুতি

সেশন ৩: জ্বালানি সাশ্রয় ও ব্রেকিং দূরত্ব

- জ্বালানি সাশ্রয়ী ড্রাইভিং টেকনিকস: সঠিক গিয়ার ব্যবহার, টায়ার প্রেশার, সার্ভিসিং
- থামানোর দূরত্বের উপাদান: শনাক্তকরণ, প্রতিক্রিয়া ও ব্রেকিং দূরত্ব এবং পরিবেশের প্রভাব

সেশন ৪: সড়ক ও মহাসড়কে ড্রাইভার ও পথচারীর কর্তব্য

- চালক ও পথচারীর দায়িত্ব ও কর্তব্য: লেন অনুসরণ, গতিসীমা, জেব্রা ক্রসিং ব্যবহার

সেশন ৫: আধুনিক ড্রাইভিং প্রযুক্তি ও সেফটি অ্যাসিস্টেন্স সিস্টেম

- আধুনিক গাড়ির নিরাপত্তা প্রযুক্তি (ABS, ESP, লেন কিপ অ্যাসিস্ট)
- সেফটি অ্যাসিস্টেন্স সিস্টেমের কার্যকারিতা ও ব্যবহার
- ড্রাইভিংয়ে প্রযুক্তির ভূমিকা এবং দক্ষতার উন্নয়ন

দ্বিতীয় দিন: ট্র্যাফিক নিয়মাবলী ও গাড়ির যান্ত্রিক জ্ঞান

সেশন ৬: রোড সাইন এর ব্যবহার ও প্রকারভেদ

- সতর্কতামূলক, বাধ্যতামূলক ও তথ্যমূলক রোড সাইন সমূহ
- সঠিক সাইন অনুসরণের গুরুত্ব

সেশন ৭: রোড মার্কিং এর ব্যবহার ও প্রকারভেদ

- লেন মার্কিং, স্টপ লাইন, জেব্রা ক্রসিং, গতিসীমা চিহ্নের ব্যাখ্যা

সেশন ৮: ইঞ্জিন সিস্টেমের পরিচিতি (ফুয়েল ও লুব্রিকেটিং)

- ফুয়েল সিস্টেম ও লুব্রিকেটিং সিস্টেমের কার্যপ্রণালী এবং রক্ষণাবেক্ষণ

সেশন ৯: ইঞ্জিন সিস্টেমের পরিচিতি (ব্রেক, ইগনিশন) ও আধুনিক গাড়ি

- ব্রেক সিস্টেমের নিরাপত্তা, ইগনিশন সিস্টেমের ভূমিকা
- এলপিজি ও হাইব্রিড গাড়ির প্রযুক্তি ও রক্ষণাবেক্ষণ

সেশন ১০: গাড়ির ডায়গনস্টিক সিস্টেম ও আধুনিক রক্ষণাবেক্ষণ

- গাড়ির OBD (On-Board Diagnostics) সিস্টেমের ব্যবহার
- বিভিন্ন ইঞ্জিন এলাট ও সনাক্তকরণ পদ্ধতি
- আধুনিক গাড়ির রক্ষণাবেক্ষণের পদ্ধতি ও সফটওয়্যার টুলস

তৃতীয় দিন: চালকের স্বাস্থ্য, আইন ও প্রতিকূল পরিস্থিতি

সেশন ১১: চালকদের স্বাস্থ্য টিপস ও ঘুম ব্যবস্থাপনা

- শারীরিক ও মানসিক সুস্থতার গুরুত্ব
- ঘুমের স্বাস্থ্যবিধি এবং ক্লান্তি নিয়ন্ত্রণ

সেশন ১২: মাদকাসক্তি, হর্নের ক্ষতিকর প্রভাব ও সচেতনতা

- মাদকের কুফল, ড্রাইভিংয়ে এর প্রভাব ও আইন
- শব্দ দূষণ ও হর্ন ব্যবহারে সচেতনতা

সেশন ১৩: সড়ক পরিবহন আইন ও অপরাধের ধরন

- সড়ক পরিবহন আইন ২০১৮-এর গুরুত্বপূর্ণ ধারা ও অপরাধ
- জরিমানা ও শাস্তির নিয়মাবলী

সেশন ১৪: প্রতিকূল পরিস্থিতিতে ড্রাইভিং

- হাইড্রোপ্ল্যানিং প্রতিরোধ ও নিয়ন্ত্রণ

- বাঁকে নিরাপদ ড্রাইভিং কৌশল
- হেডলাইট ব্যবহারের নিয়ম ও দুর্ঘটনা এড়ানোর টিপস

সেশন ১৫: কর্মক্ষেত্রে জেভার সচেতনতা, হয়রানি, বৈষম্য ও পেশাগত আচরণ

- কর্মক্ষেত্রে জেভার সচেতনতা
- কর্মক্ষেত্রে হয়রানির ধরন
- বৈষম্য প্রতিরোধ
- সম্মানজনক কর্মপরিবেশ নিশ্চিতকরণ

29. কর্মক্ষেত্রে পেশাদারিত্ব, ছুটি, সুবিধাদি, শৃঙ্খলা ও শান্তি

কোর্স কোড	:	IH-CB-0019
কোর্সের নাম	:	কর্মক্ষেত্রে পেশাদারিত্ব, ছুটি, সুবিধাদি, শৃঙ্খলা ও শান্তি
কোর্সের মেয়াদ	:	০৩ দিন।
সেশন	:	১৫ টি। [প্রতি সেশন = ১ ঘন্টা]
সেশন প্ল্যান	:	১ম সেশন=০৯.৩০-১০.৩০ ঘটিকা ২য় সেশন= ১০.৫০-১১.৫০ ঘটিকা ৩য় সেশন=১২.০০-০১.০০ ঘটিকা ৪র্থ সেশন ০২.৩০-০৩.৩০ ঘটিকা ৫ম সেশন ০৩.৪০-০৪.৪০ ঘটিকা
টার্গেট গ্রুপ	:	সকল স্তরের কর্মচারী।
অংশগ্রহণকারীর সংখ্যা	:	২৫ জন।
কোর্সের উদ্দেশ্য	:	অংশগ্রহণকারীদের কর্মক্ষেত্রে পেশাদারিত্ব, নৈতিক আচরণ, দলগত কাজ, নিরাপত্তা সচেতনতা, এবং প্রাতিষ্ঠানিক মূল্যবোধ সম্পর্কে বিস্তারিত ধারণা প্রদান ও ব্যক্তিগত উন্নয়ন।
মূল্যায়ন প্রক্রিয়া	:	প্রি-টেস্ট ও পোস্ট-টেস্ট

কোর্স আউটলাইন :

প্রথম দিন: পেশাদারিত্ব ও আচরণগত উন্নয়ন

সেশন ১: ইউনিফর্ম, সাজসজ্জা এবং উপস্থিতি

- পরিষ্কার পোশাক ও সময় মতো কর্মস্থলে উপস্থিতির গুরুত্ব
- ব্যক্তিগত পরিচ্ছন্নতা ও স্বাস্থ্যবিধি
- পরিচয়পত্র দৃশ্যমানভাবে পরিধানের নিয়মাবলী

সেশন ২: ভূমিকার মর্যাদা: "আপনার ভূমিকা গুরুত্বপূর্ণ"

- প্রতিটি কাজের উদ্দেশ্য ও তার গুরুত্ব
- পরিষ্কার-পরিচ্ছন্নতা, ড্রাইভিং, রান্না ইত্যাদির মাধ্যমে প্রতিষ্ঠানের লক্ষ্যে অবদান
- ব্যক্তিগত ভূমিকা ও প্রতিষ্ঠানের সাফল্যের সম্পর্ক

সেশন ৩: শিষ্টাচার, আদব-কায়দা ও কর্মক্ষেত্রের আচরণ

- নম্রতা, কথার সুর ও বৈঠকের সময় নীরব থাকার নিয়ম
- উর্ধ্বতন কর্তৃপক্ষের প্রতি শ্রদ্ধাশীল মনোভাব
- কর্মক্ষেত্রে পেশাদার আচরণের প্রয়োজনীয়তা

সেশন ৪: দলবদ্ধ কাজ ও "আমরা, আমি নই" সংস্কৃতি

- প্রতিযোগিতার পরিবর্তে সমন্বয়ের গুরুত্ব
- পারস্পরিক শ্রদ্ধা ও ঐক্যের ভূমিকা
- কার্যকর দলগত কাজের কৌশল ও অভ্যাস

সেশন ৫: পেশাগত মানসিকতা ও কর্পোরেট সংস্কৃতি

- কর্পোরেট সংস্কৃতির ধারণা ও মানিয়ে চলার পদ্ধতি
- পেশাদার মানসিকতা বিকাশের উপায়
- কর্মক্ষেত্রে ইতিবাচক মনোভাব ও দায়িত্ব

দ্বিতীয় দিন: নিরাপত্তা, পরিবেশ ও নৈতিকতা

সেশন ৬: অগ্নি নিরাপত্তা ও জরুরি বহির্গমন সচেতনতা

- অগ্নিকাণ্ডের কারণ ও প্রতিরোধ
- অগ্নি নির্বাপক যন্ত্রের ব্যবহার
- জরুরি বহির্গমনের নিয়মাবলী ও নিরাপদ চলাচল

সেশন ৭: কর্মক্ষেত্রে জেন্ডার সচেতনতা, হয়রানি, বৈষম্য ও পেশাগত আচরণ

- কর্মক্ষেত্রে জেন্ডার সচেতনতা
- কর্মক্ষেত্রে হয়রানির ধরন
- বৈষম্য প্রতিরোধ
- সম্মানজনক কর্মপরিবেশ নিশ্চিতকরণ

সেশন ৮: বিশ্বাস, শৃঙ্খলা ও ধর্মীয় সংবেদনশীলতা

- সকল বিশ্বাসের প্রতি শ্রদ্ধাশীল হওয়ার গুরুত্ব
- জবরদস্তি থেকে বিরত থাকার নৈতিক দায়িত্ব
- ধর্মীয় ও সাংস্কৃতিক সংবেদনশীলতার গুরুত্ব

সেশন ৯: কোম্পানির মিশন, ভিশন ও সেবা বিধিমালা পরিচিতি

- প্রতিষ্ঠানের মিশন ও ভিশন এর ব্যাখ্যা
- সেবার ক্ষেত্র ও দায়িত্ববোধের সম্পর্ক
- কোম্পানির সেবা বিধিমালা ও নিয়মাবলী

সেশন ১০: কর্মক্ষেত্রে নৈতিকতা ও প্রফেশনালিজম

- কর্মক্ষেত্রে নৈতিকতার গুরুত্ব ও চ্যালেঞ্জ
- প্রফেশনাল আচরণ ও সিদ্ধান্ত গ্রহণের প্রক্রিয়া
- জটিল পরিস্থিতিতে নৈতিক dilemma মোকাবেলার কৌশল

তৃতীয় দিন: ছুটি, সুবিধাদি ও অফিস আচরণবিধি

সেশন ১১: ছুটির ধরণ ও প্রক্রিয়া

- বিভিন্ন ধরণের ছুটি (বার্ষিক, রোগী, জরুরি)
- ছুটির আবেদন, অনুমোদন ও প্রত্যাখ্যানের নিয়মাবলী
- ছুটির পরিকল্পনা ও ব্যবস্থাপনা

সেশন ১২: চাকরির সুবিধাদি

- আর্থিক সুবিধাদি (বোনাস, ভাতা, পেনশন)
- অআর্থিক সুবিধাদি (স্বাস্থ্যসেবা, প্রশিক্ষণ, কর্মপরিবেশ)
- সুবিধাদি পাওয়ার শর্তাবলী

সেশন ১৩: আচরণবিধি ও শৃঙ্খলাবিধি

- NWPGL-এর আচরণবিধির মূল পয়েন্টসমূহ
- শৃঙ্খলা ভঙ্গের ধরন ও ফলাফল
- শৃঙ্খলা রক্ষার গুরুত্ব

সেশন ১৪: শাস্তিমূলক ব্যবস্থা

- শাস্তির বিভিন্ন ধরন (মৌখিক, লিখিত সতর্কতা, বরখাস্ত)
- শাস্তির ক্ষেত্রে ন্যায়বিচারের প্রক্রিয়া
- আপিল ও পুনর্বিবেচনার নিয়মাবলী

সেশন ১৫: কর্মক্ষেত্রে আইনি সচেতনতা ও শ্রম আইন পরিচিতি

- শ্রম আইন ও কর্মচারীর অধিকার সম্পর্কিত ধারণা
- কর্মক্ষেত্রে আইনগত বাধ্যবাধকতা ও দায়িত্ব
- আইনগত সমস্যায় সমাধানের পথ ও কৌশল

30. ফায়ার সেফটি, জরুরি সাড়া (Emergency Response Plan) প্রদান ও কর্মক্ষেত্রে নিরাপত্তা (Workplace Safety) ব্যবস্থাপনা

কোর্স কোড	:	IH-CB-0048
কোর্সের নাম	:	ফায়ার সেফটি, জরুরি সাড়া (Emergency Response Plan) প্রদান ও কর্মক্ষেত্রে নিরাপত্তা (Workplace Safety) ব্যবস্থাপনা
কোর্সের মেয়াদ	:	০২ দিন।
সেশন	:	১০ টি। [প্রতি সেশন = ১ ঘন্টা]
সেশন প্ল্যান	:	১ম সেশন=০৯.৩০-১০.৩০ ঘটিকা ২য় সেশন= ১০.৫০-১১.৫০ ঘটিকা ৩য় সেশন=১২.০০-০১.০০ ঘটিকা ৪র্থ সেশন ০২.৩০-০৩.৩০ ঘটিকা ৫ম সেশন ০৩.৪০-০৪.৪০ ঘটিকা
টার্গেট গ্রুপ	:	সকল কর্মচারী
অংশগ্রহণকারীর সংখ্যা	:	২৫ জন।
কোর্সের উদ্দেশ্য	:	অংশগ্রহণকারীদের অগ্নি নিরাপত্তা, অগ্নি প্রতিরোধ, অগ্নি নির্বাপন, উদ্ধার কার্যক্রম, জরুরি পরিস্থিতি মোকাবিলা এবং প্রাথমিক চিকিৎসা বিষয়ে প্রয়োজনীয় জ্ঞান ও ব্যবহারিক দক্ষতা প্রদান করা, যাতে কর্মস্থলে নিরাপদ পরিবেশ নিশ্চিত করা যায়।
মূল্যায়ন প্রক্রিয়া	:	প্রি-টেস্ট ও পোস্ট টেস্ট
কোর্স আউটলাইন :		
সেশন ১: অগ্নি নিরাপত্তার মৌলিক ধারণা		

- আগুনের উৎস ও উৎপত্তি
- আগুন লাগার সাধারণ কারণসমূহ
- অগ্নিকাণ্ডের ঝুঁকি ও ক্ষয়ক্ষতি
- অগ্নি প্রতিরোধে ব্যক্তিগত ও প্রাতিষ্ঠানিক করণীয়

সেশন ২: অগ্নি প্রজ্জ্বলন ও নির্বাপন নীতি

- ফায়ার ট্রায়াঙ্গেল ও ফায়ার টেট্রাহেড্রন
- আগুনের শ্রেণীবিভাগ (Class A, B, C, D, K/F)
- আগুনের বিস্তার ও নিয়ন্ত্রণ কৌশল
- শ্রেণীভিত্তিক নির্বাপন পদ্ধতি ও মাধ্যম

সেশন ৩: অগ্নিকাণ্ড প্রতিরোধ ও নিরাপত্তা ব্যবস্থা

- অগ্নিকাণ্ডের কারণ বিশ্লেষণ
- বৈদ্যুতিক ও যান্ত্রিক ঝুঁকি ব্যবস্থাপনা
- অগ্নি নিরাপত্তা সচেতনতা বৃদ্ধি
- কর্মক্ষেত্রে নিরাপদ আচরণ ও প্রতিরোধমূলক ব্যবস্থা

সেশন ৪: বহনযোগ্য অগ্নি নির্বাপক যন্ত্রের ব্যবহার ও রক্ষণাবেক্ষণ

- বিভিন্ন ধরনের ফায়ার এক্সটিংগুইশার
- ফায়ার এক্সটিংগুইশার নির্বাচন পদ্ধতি
- PASS Technique-এর ব্যবহার
- পরিদর্শন ও রক্ষণাবেক্ষণ পদ্ধতি

সেশন ৫: স্থায়ী অগ্নি প্রতিরোধ ও নির্বাপন ব্যবস্থা

- ফায়ার অ্যালার্ম ও ডিটেকশন সিস্টেম
- স্প্রিংকলার ও হাইড্রেন্ট সিস্টেম
- বাণিজ্যিক ও বহুতল ভবনের অগ্নি নিরাপত্তা
- Evacuation Plan ও Assembly Point

দ্বিতীয় দিন: উদ্ধার কার্যক্রম, জরুরি পরিস্থিতি ও প্রাথমিক চিকিৎসা

সেশন ৬: জরুরি নির্গমন ও ইভাকুয়েশন প্রসিডিউর

- ইমার্জেন্সি এক্সিটের ব্যবহার
- নিরাপদে ভবন ত্যাগের পদ্ধতি
- Evacuation Team-এর দায়িত্ব
- জরুরি অবস্থায় সমন্বিত প্রতিক্রিয়া

সেশন ৭: অগ্নি নির্বাপন ও উদ্ধার কার্যক্রমের ব্যবহারিক প্রশিক্ষণ

- ফায়ার এক্সটিংগুইশারের বাস্তব ব্যবহার
- প্রাথমিক উদ্ধার কৌশল
- ধোঁয়াপূর্ণ পরিবেশে নিরাপদ চলাচল

- Mock Fire Drill পরিচালনা

সেশন ৮: ব্যক্তিগত নিরাপত্তা ও দুর্ঘটনা ব্যবস্থাপনা

- ব্যক্তিগত ও প্রাতিষ্ঠানিক নিরাপত্তা সচেতনতা
- ভূমিকম্প করণীয়
- অন্যান্য জরুরি পরিস্থিতিতে প্রতিক্রিয়া
- দুর্ঘটনা-পরবর্তী নিরাপত্তা ব্যবস্থা

সেশন ৯: রোগী পর্যবেক্ষণ ও প্রাথমিক চিকিৎসা

- রোগীর অবস্থা মূল্যায়ন
- দক্ষ ব্যক্তির প্রাথমিক চিকিৎসা
- রক্তক্ষরণ, অজ্ঞান হওয়া ও শক ব্যবস্থাপনা
- জরুরি চিকিৎসা সহায়তার মৌলিক ধারণা

সেশন ১০: ব্যবহারিক মহড়া ও প্রশিক্ষণ মূল্যায়ন

- সমন্বিত ফায়ার ড্রিল
- ইভাকুয়েশন অনুশীলন
- ফায়ার সেফটি সম্পর্কিত সমস্যা সমাধান
- প্রশিক্ষণ মূল্যায়ন, ফিডব্যাক ও সমাপনী আলোচনা

31. অফিস সহায়তা কার্যক্রম ও প্রশাসনিক ব্যবস্থাপনা

কোর্স কোড	:	IH-CB-0053
কোর্সের নাম	:	অফিস সহায়তা কার্যক্রম ও প্রশাসনিক ব্যবস্থাপনা
কোর্সের মেয়াদ	:	০২ দিন।
সেশন	:	১৫ টি। [প্রতি সেশন = ১ ঘণ্টা]
সেশন প্ল্যান	:	১ম সেশন=০৯.৩০-১০.৩০ ঘটিকা ২য় সেশন= ১০.৫০-১১.৫০ ঘটিকা ৩য় সেশন=১২.০০-০১.০০ ঘটিকা ৪র্থ সেশন ০২.৩০-০৩.৩০ ঘটিকা ৫ম সেশন ০৩.৪০-০৪.৪০ ঘটিকা
টার্গেট গ্রুপ	:	অফিস সহকারী / হিসাব সহকারী।
অংশগ্রহণকারীর সংখ্যা	:	২৫ জন।
কোর্সের উদ্দেশ্য	:	অফিস সহকারী ও হিসাব সহকারীদের দাপ্তরিক নোট ও ড্রাফটিং, ডি-নথি ব্যবস্থাপনা, ফাইল সংরক্ষণ, ইমপ্রেস্ট ও সাময়িক আগাম উত্তোলন, হিসাব সমন্বয় এবং প্রশাসনিক সহায়তা কার্যক্রমে দক্ষতা বৃদ্ধি করা।
মূল্যায়ন প্রক্রিয়া	:	প্রি-টেস্ট ও পোস্ট টেস্ট
কোর্স আউটলাইন :		

প্রথম দিন: দাপ্তরিক নোট, ড্রাফটিং ও ডি-নথি ব্যবস্থাপনা

সেশন ১: অফিস সহায়তা কার্যক্রমের পরিচিতি ও দায়িত্ব

- অফিস সহকারী ও হিসাব সহকারীর ভূমিকা
- প্রশাসনিক ও হিসাব সংক্রান্ত দায়িত্বসমূহ
- দাপ্তরিক কার্যক্রমে পেশাদারিত্ব ও জবাবদিহিতা

সেশন ২: নোট ড্রাফটিং ও অফিস আদেশ প্রণয়ন

- নোট ও ড্রাফটিংয়ের মৌলিক ধারণা
- অফিস আদেশ, অনুমোদন নোট ও প্রতিবেদন প্রস্তুতি
- কার্যকর ও সংক্ষিপ্ত দাপ্তরিক ভাষা ব্যবহার

সেশন ৩: দাপ্তরিক পত্র ও যোগাযোগ ব্যবস্থাপনা

- অফিসিয়াল পত্র, স্মারক ও ই-মেইল প্রস্তুতকরণ
- পত্র প্রেরণ ও সংরক্ষণের নিয়ম
- আন্তঃবিভাগীয় যোগাযোগ পদ্ধতি

সেশন ৪: ডি-নথি (e-Nothi) ব্যবস্থাপনার মৌলিক ধারণা

- ডি-নথির কাঠামো ও কার্যপ্রবাহ
- নথি তৈরি, উপস্থাপন ও প্রেরণ
- ডিজিটাল নথি ব্যবস্থাপনার সুবিধা

সেশন ৫: ডি-নথি ফাইল অর্গানাইজ ও রেকর্ড সংরক্ষণ

- ফাইল শ্রেণিবিন্যাস ও ইনডেক্সিং
- ডিজিটাল ও হার্ডকপি নথি সংরক্ষণ
- নথি অনুসন্ধান ও আর্কাইভ ব্যবস্থাপনা

দ্বিতীয় দিন: ইমপ্রেস্ট, হিসাব সমন্বয় ও প্রশাসনিক সহায়তা

সেশন ৬: ইমপ্রেস্ট (Imprest) ব্যবস্থাপনার নীতিমালা

- ইমপ্রেস্টের ধারণা ও উদ্দেশ্য
- ইমপ্রেস্ট উত্তোলনের নিয়মাবলি
- দায়িত্ব ও জবাবদিহিতা

সেশন ৭: সাময়িক আগাম উত্তোলন ও সমন্বয়

- সাময়িক আগাম গ্রহণের প্রক্রিয়া
- ব্যয়ের হিসাব উপস্থাপন
- সমন্বয় ও নিষ্পত্তির পদ্ধতি

সেশন ৮: বিল, ভাউচার ও হিসাব সংরক্ষণ

- বিল ও ভাউচার প্রস্তুতকরণ
- প্রয়োজনীয় সমর্থক দলিল সংরক্ষণ
- হিসাব রেজিস্টার ও রেকর্ড ব্যবস্থাপনা

সেশন ৯: প্রশাসনিক ফাইল ব্যবস্থাপনা ও ডকুমেন্ট কন্ট্রোল

- অফিস ফাইল মুভমেন্ট ও ট্র্যাকিং
- নথির গোপনীয়তা ও নিরাপত্তা
- ডকুমেন্ট কন্ট্রোল ও রক্ষণাবেক্ষণ

সেশন ১০: কর্মক্ষেত্রে জেডার সচেতনতা, হয়রানি, বৈষম্য ও পেশাগত আচরণ

- কর্মক্ষেত্রে জেডার সচেতনতা
- কর্মক্ষেত্রে হয়রানির ধরন
- বৈষম্য প্রতিরোধ
- সম্মানজনক কর্মপরিবেশ নিশ্চিতকরণ

31. Induction Training

Course Code	:	IH-CB-0047
Course Name	:	Induction Training
Duration	:	07 Days
Number of Sessions	:	25
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Newly recruited Officers and Staffs
No. Of Participants	:	25
Course Objectives	:	This induction training aims to familiarize newly recruited officers with the vision, mission, values, organizational structure, operational activities, policies, procedures, and strategic objectives of NWPGL and the Bangladesh power sector. The training will provide participants with a comprehensive understanding of corporate governance, human resource management, financial systems, project implementation, power generation technologies, safety practices, and digital transformation initiatives. Through practical exposure via a plant visit, participants will gain firsthand knowledge of power plant operations and contribute effectively to achieving organizational goals.
Evaluation Method	:	Pre-Test and Post-Test
Course Outline:		

Day-1: Introduction to NWPGL and Bangladesh Power Sector

Session 1

Inauguration and Overview of NWPGL

Session 2 & 3

Overview of Bangladesh Power Sector

- Evolution of Bangladesh power sector
- Generation, transmission and distribution framework
- Role of BPDB, PGCB, BERC, SREDA and private sector

Session 4 & 5

Company Overview, Mission, Vision and Strategic Goals of NWPGL

- Establishment and growth of NWPGL
- Vision, mission, core values
- Organizational structure
- Current and future projects

Day-2: Service Rules, HR and Organizational Culture

Session 6

Recruitment Rules and General Conditions of Service

- Appointment Process
- Probation and Confirmation
- Categories of Employees
- Terms and Conditions of Employment

Session 7

Seniority, Promotion and Career Development

- Promotion Policy
- Career Progression Framework
- Training and Professional Development
- Succession Planning

Session 8

Leave Rules and Administrative Procedures

- Casual Leave
- Earned Leave
- Medical Leave
- Maternity/Paternity Leave
- Leave Approval Procedures

Session 9

Employee Benefits and Welfare Facilities

- Salary Structure
- Provident Fund
- Gratuity
- Insurance Facilities
- Medical Benefits
- Welfare Fund

Session 10

General Conduct, Discipline and Ethics

- Employee Responsibilities
- Code of Conduct
- Workplace Ethics
- Anti-Corruption Practices
- Disciplinary Procedures

Day-3: Office Management and Digital Transformation

Session 11

Official Correspondence, Note Writing and File Management

Session 12

D-Filing System and ERP Applications

Session 13

Etiquette, Professionalism and Workplace Behavior

Session 14

Performance Management System, APA and KPI

- Goal setting
- Monitoring and evaluation
- Organizational performance culture

Session 15

Gender Awareness and Workplace Harassment

Day-4: Finance, Procurement and Audit

Session 16 & 17

Public Procurement Act (PPA) and Public Procurement Rules (PPR)

Session 18

Overview of Accounts and Finance Functions

Session 19

Financial Management in Power Sector

Session 20

Audit Management and Settlement of Audit Objections

Day-5: Technical Orientation on Power Generation

Session 21 & 22

Introduction to Electricity Generation Technologies

- Coal, gas and oil-based plants
- Combined cycle and simple cycle technologies
- Renewable energy overview

Session 23

Primary Energy Sources for Power Generation

Session 24 & 25

Power Plant Operations of NWPGL

- Operational philosophy
 - Generation process
 - Challenges and opportunities
-

Day-6: Project Management, EHS and Sustainability

Session 26

Environment, Health & Safety (EHS) and ISO Management Systems

Session 27

Occupational Safety and Emergency Response

Session 28 & 29

Project Management Fundamentals

- Project life cycle
- Planning and implementation
- Monitoring and control

Session 30

Power Plant Project Implementation and Evacuation Procedures

Day-7: Plant Visit and Practical Exposure

Session 31, 32, 33, 34 & 35

Plant Visit to NWPGL Power Station

- Introduction to plant facilities
- Control room visit
- Turbine and generator systems
- Fuel handling and auxiliary systems
- EHS practices in operation
- Maintenance management overview
- Question and answer session with plant officials
- Group presentation on lessons learned

- Post-Test and Closing Ceremony

COURSE CONTENTS OF SIRAGANJ POWER STATION

1. Basic Training Course on First Aid

Course Code	:	IH-CB-0028
Course Name	:	Basic Training Course on First Aid
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	First Aider and other staffs
No. Of Participants	:	30
Course Objectives	:	To prevent and minimize life risk at emergency situation.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation
Course Outline:		
Day-1		
Session 1: Occupational Health Safety EHS Management System and its Importance in Organizations; Incident, Accident; Incident, Accident Investigation and CAPA; Managing Workplace Incidents/Accidents; Personal Protective Equipment (PPE); Safe Management of Work at Height; Confined Space Entry; Hot Work Safety. Do's and Don'ts for EHS. Machine Guard, Isolation of Hazardous Energy, Electrical Safety, Hazardous Chemical Management, Laboratory Safety Practices and Procedures, Environmental Stewardship, Safety Cultures and Leadership Responsibilities		
Session 2 & 3: CPR Cardio-Pulmonary Resuscitation (Practical) Cardiac arrest, chest compressions, rescue breaths, the CAB method, use of AED, and emergency response steps.		
Session 4 & 5: Fracture Management Identifying signs of a fracture, types of fractures, immobilizing the injured area, using splints or slings, avoiding movement, basic first aid steps, and the importance of seeking immediate medical help.		
Day-2		
Session 6: Burn Injury Management & How to control Bleeding - Types of Burns, Assessing Burn Severity, Cooling the Burn, Covering the Burn, Avoiding Infection, Do's and Don'ts in Burn Care, Pain Management, When to Seek Medical Help. - Identifying Types of Bleeding, Applying Direct Pressure, Use of Bandages, Elevation of Injured Area, Pressure Points, Using Tourniquets (if trained), Signs of Severe Blood Loss, When to Seek Medical Help.		

Session 7: Management of any animal bite & Eye Injury

- Cleaning the Wound, Preventing Infection, Rabies Awareness, When to Seek Medical Help, Eye Injury Types, Immediate First Aid, Avoiding Further Damage, Eye Irrigation, Protecting the Eye, Seeking Emergency Care.

Session 08: Hazard Identification and Risk Assessment (HIRA)

- Recognizing workplace hazards, categorizing risks, evaluating the likelihood and impact of hazards, risk control measures, documentation and reporting, employee involvement, and continuous monitoring and review.

Session 09: First Aid Box Equipment identification & Use of these instruments

- Bandages, antiseptic wipes, adhesive tape, scissors, gloves, tweezers, pain relief medication, CPR mask, cold packs, and how to properly use each item during emergencies.

Session 10: How to use O2 cylinder & Chocking, Drowning & Fainting

- Checking the cylinder and regulator, attaching the flow meter, setting the correct oxygen flow rate, using masks or nasal cannulas, safety precautions, storage guidelines, and emergency shutdown procedures.
- Recognizing signs and symptoms, immediate first aid steps for choking (like the Heimlich maneuver), rescue techniques for drowning victims, placing fainted persons in the recovery position, ensuring airway clearance, calling for emergency help, and preventing these emergencies.

Day-3**Session 11: Dengue, Chikungunya, Malaria Etc.**

- Causes and transmission, common symptoms, prevention methods like mosquito control, use of mosquito nets and repellents, importance of early diagnosis, treatment options, and community awareness.

Session 12: Cervical Cancer, Influenza, Typhoid

- Causes and risk factors, symptoms and signs, prevention methods such as vaccines and hygiene, early detection, treatment options, and importance of public awareness.

Session 13: Fire Hazard & Extinguishing Process

- Causes of fire, types of fire, fire prevention measures, use of fire extinguishers (water, foam, CO2, dry powder), evacuation procedures, fire alarms, and emergency response actions.

Session 14: Diabetes Mellitus, Hypertension

- Causes and risk factors, symptoms, lifestyle and dietary management, medication adherence, monitoring blood sugar and blood pressure, complications, and importance of regular health check-ups.

Session 15: Stroke, Heart Attack, Heat Stroke

- Recognizing symptoms, immediate first aid steps, risk factors, prevention strategies, emergency response, and when to seek medical help.

2. Public Procurement Rules (2025)

Course Code	:	IH-CB-0029
Course Name	:	Public Procurement Rules (PPR-2025)
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Officers
No. Of Participants	:	30
Course Objectives	:	To get familiarize with PPR-2025 & its Implantation in Official activities.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation

Course Outline:

Day-1

Session 1 & 2: Procurement Plan

- Identifying procurement needs, budgeting and cost estimation, supplier selection criteria, procurement methods and procedures, timeline and scheduling, approval processes, risk assessment, and contract management.

Session 3: Formation of Committee

- The purpose and scope of the committee, selecting qualified members, determining roles and responsibilities, setting terms of reference (ToR), establishing rules of procedure, ensuring representation and transparency, approval and formalization process, and maintaining records of meetings and decisions

Session 4 & 5: Procurement Method (Strategy to select)

- Identifying procurement objectives, selecting between open tendering and limited tendering, request for quotation (RFQ), direct procurement, framework agreements, evaluating supplier capabilities, cost-effectiveness analysis, compliance with procurement policies, and choosing methods

Day-2

Session 6, 7 & 8: Procurement of goods and its related Standard Procurement Documents

- Identifying needs and specifications, preparing procurement plans, selecting appropriate procurement methods, inviting and evaluating bids or quotations, supplier selection, contract award and management, delivery inspection, quality assurance, and compliance with procurement rules and regulations and list of Standard Procurement Documents.

Session 9 & 10: Procurement of works and its related Standard Procurement Documents

- Identifying needs and specifications, preparing procurement plans, selecting appropriate procurement methods, inviting and evaluating bids or quotations, supplier selection, contract award and management, delivery inspection, quality assurance, and compliance with procurement rules and regulations and list of Standard Procurement Documents.

Day-3

Session 11 & 12: Procurement of Service and its related Standard Procurement Document

- The scope of services, preparing terms of reference (ToR), selecting the appropriate procurement method, shortlisting and evaluating service providers, assessing technical and financial proposals, contract negotiation and award, performance monitoring, and ensuring compliance with service agreements and procurement regulations and list of Standard Procurement Documents

Session 13 & 14: Delegation of Financial Power

- Short Title and Commencement, Definitions Some Context Related to PPR – 2008 & 2025, Preparation of Tender or Proposal, Committee, Etc., Procurement Method, delegation of Financial Power- 2012 (Revenue), Short Titles and Comments, Annual Procurement Plan, General Instruction to Delegation of Financial Power.

Session 15: Tender Evaluation and contract Award

- Formation of the evaluation committee, evaluation criteria and methodology, technical and financial bid assessment, compliance with tender requirements, preparation of evaluation reports, seeking necessary approvals, notification of award, contract negotiation (if needed), and formal signing of the contract following procurement rules.

3. Electrical System Troubleshooting & Case Study Analysis in Power Plants

Course Code	:	IH-CB-0059
Course Name	:	Electrical System Troubleshooting & Case Study Analysis in Power Plants
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Electrical Background Officers
No. Of Participants	:	30
Course Objectives	:	This course provides basic knowledge of electrical systems, protection schemes, and instrumentation. It covers the operation and monitoring of generators, transformers, motors, and HVAC systems. Participants will learn to use testing instruments and perform inspections on battery banks. The course also introduces motor control circuits and electrical safety.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation
Course Outline:		

Day-1

Session 1: Overall Electrical System of a Power Plant

Key Components of Power Plant Electrical System, Generator system, Generator transformer, Unit auxiliary transformer, Switchyard, Emergency power system, Electrical Voltage Levels (Typical) Important Electrical Equipment, Electrical Single Line Diagram (SLD)

Session 2: Synchronous Generator –Operation & Synchronization Principles

Basic Operating Principle, Main components, Key Operating Parameters, Synchronization Requirements, Synchronizing Methods, Protection involved.

Session 3: Generator Excitation System

Purpose of Excitation System, Functions, Types of Excitation System, Components, Important Excitation Protections, GTG Excitation System, STG Excitation System

Session 4: Generator Protection & Interlocking Logic

Importance of Protection, Major Generator Protections, GTG Protection Relay, STG Protection Relay, DIGSI 5, PCM 600, Interlocking Logic

Session 5: EDG and Emergency Bus

Purpose of Emergency Power System, Key Equipment, Emergency Bus Loads, EDG Operation, Emergency Situation Handling.

Day-2

Session 6: Case Introduction-GCB is not Closing

Scenario, Possible indications, Protection diagram, Interconnection diagram.

Session 7: Root Cause Identification Framework-GCB is not Closing

Root Cause Identification Framework, Troubleshooting steps, GTG synchronization device, STG synchronization device.

Session 8: Technical Analysis of Fault-GCB is not Closing

Possible causes, Analysis tools, Synchronism check relay blocking, Incorrect phase sequence, PT fuse failure, Synchronizer malfunction, Control logic failure

Session 9: Rectification & Verification-GCB is not Closing

Steps to resolve the issue, Verification methods, Correct synchronization parameters, Repair faulty PT circuit, Reset protection relay, Verify breaker control circuit, Conduct synchronization test

Session 10: Lessons Learned & Preventive Strategy-GCB is not Closing

Preventive actions, Participants prepare Root Cause Analysis (RCA), Regular relay testing, Synchronizer calibration, PT circuit inspection, and control logic verification

Day-3

Session 11: Electrical Emergency Management in Power Plants

Common Electrical Emergencies, Electrical fire, Loss of DC system, Breaker failure, Transformer fault, Blackout, Emergency Response Priorities, Personnel safety, Fire control, Equipment protection, System restoration

Session 12: Emergency Case-1: Battery & DC System

Importance of DC System, DC system supplies, Emergency Conditions, Emergency Actions, RCA.

Session 13: Emergency Case–2: EDG failed to start

Possible Causes, Immediate Actions, Risk, RCA.

Session 14: Emergency Case–3: Line Circuit Breaker Not Closing

Possible Causes, Immediate Actions, Risk, RCA.

Session 15: Emergency Case–3: Excitation Circuit Breaker Not Closing

Possible Causes, Immediate Actions, Risk, RCA.

4. Contingency Plan of Power Plant Operation

Course Code	:	IH-CB-0060
Course Name	:	Contingency Plan of Power Plant Operation
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Officers (AE to XEN)
No. Of Participants	:	30
Course Objectives	:	• Develop structured contingency response capability for power plant operations. • Ensure safe plant operation during abnormal and emergency conditions. • Ensuring personnel safety, equipment protection, and rapid system restoration. • Improve availability, reliability, and heat rate under disturbances. • Strengthening coordination between Operation, Maintenance, Electrical, and Fuel Supply. • Align operational decision-making with grid and PPA obligations.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation
Course Outline:		
Day-1		
Course Introduction and Fundamentals of Contingency Planning		
Session 1: Types of Power Plant Contingencies and Emergencies: Generation (GT overspeed, Boiler Tube failures, Cooling System), Fuel supply Contingency (Low gas pressure strategy, GT derating logic, Fuel		

switching limitation, Economic dispatch under fuel shortage), Electrical (Voltage, Frequency), Auxiliary, Safety contingency (fire, electrical contact, etc).

Session 2: Roles and Responsibilities for Contingency Planning: Shift Supervisor, Control Room Operator, Executive Engineer, Plant Manager, Support Personnel.

Session 3: Key Characteristics of Effective Contingency Plans. Why Contingency Plans Matter. Regulatory Framework (NERC, OSHA, EPA, Industry standards). Contingency philosophy, Critical systems mapping, Risk Assessment and Vulnerability Analysis & Operational risk pyramid, Human factors in emergencies. Identifying Potential Contingencies & HAZID/HAZOP Approach. Risk Prioritization Using Risk Matrices, Recognizing Early Warning Signs, Grid Disturbance & Electrical Contingency.

Basic Operation Scheme

Session 4: Combustion Stability & Emergency Response: Gas pressure drop impact, Premix vs diffusion mode, Combustion stability risks (Proper air–fuel ratio, Adequate fuel pressure, good mixing of air and fuel, Stable flame anchoring), Load reduction strategy, Fire & gas system response, Emergency shutdown philosophy, Permit & isolation control, Flame instability, High exhaust temperature spread, Compressor surge risk, DLN combustion fallback.

Session 5: Drill & Simulation Enhancement: Integrated Plant Contingency Drill (GT trip + HRSG Leak/stress, Total blackout, Fire + power loss, Cooling water failure).

Day-2

Session 6: HRSG Contingency

- Drum level excursion, Tube leak response, Bypass operation, Start-up/shutdown mismatch (GT responds very fast, but the HRSG and steam cycle respond slowly), ST-HRSG server/controller hung – Contingency Shutdown Strategy & risk analysis,
- Operational Indicators: Observe - Rapid HRSG pressure fluctuation, Steam bypass valve frequent operation, Drum level oscillation, HRSG metal temperature alarms, GT ramp rate limit.

Session 7: Steam System Contingency:

- Steam Turbine & Condenser Emergency Operation: Vacuum loss, Gland steam failure, Overspeed prevention, Lube oil failure response.
- ST temperature mismatch alarms

Session 8: Balance of Plant (BOP) Contingency:

- Cooling water failure, DM/WTP interruption, Pump & motor redundancy

Electrical System Failure Management

Session 9: Auxiliary Power Sources (Electrical): UAT, SAT, EDG, UPS/Battery, ATS logic & transfer philosophy, 6.6 kV & LV bus contingency, Black start readiness, Control System / DCS Failure (DCS hang / controller freeze, Sensor failure/false signal risk, Manual operation fallback, Logic bypass risk). Cybersecurity Contingency (SCADA/DCS cyber risk, Unauthorized control signals, Isolation procedure), Operation–Maintenance Coordination (When to continue operation with defect, Temporary vs permanent repair, Spare part criticality).

Session 10: Case Study (Electrical):

GT trip due to high exhaust spread
 HRSG tube leak escalation
 Blackout / total station failure
 Grid frequency collapse event
 Find: What happened, Root cause, Wrong decisions, Correct response.

Day-3

Session 11: Outage & Availability Contingency:

- Forced vs planned outage, Reliability & availability factor, Outage classification
- Environmental & Emission Contingency: Stack monitoring.

Operational Decision Matrix

Session 12: Load vs risk tradeoff (decide whether to): Maintain full load, Reduce load, Shutdown equipment), Continue vs shutdown decision (Considering - Gas pressure drop, High exhaust temperature spread (50°C → Reduce load, 80°C → Prepare shutdown, 100°C → Trip), Grid instability Contingency Management (Frequency deviation response, Voltage collapse scenario, Dispatch instruction vs plant safety, Communication with NLDC, NLDC Plant Merit list according Fuel and other factors, When to refuse dispatch, When to trip vs ride-through), Cooling water problems, Equipment alarms), Escalation levels & activation process (Operator Action, Shift In-Charge Engineer Decision, Executive Engineer & Plant Management, Corporate / Grid Authority).

Session 13: Operational Decisions & Financial Impact: Financial & PPA Impact Awareness, Operational Decision vs Financial Impact (Trip → capacity payment impact, Partial load → heat rate penalty, Forced outage → PPA implications, Management expectations)

Emergency Recovery & Restart Strategy

Session 14: Contingency Plan Development Process (Pro-Active Plan): Develop Response Actions, Identify Resources, Establish Communication Protocols, Train Personnel. Coordination with Internal and External Stakeholders. Resource (Fire Protection, medical, Etc) Management During contingencies. Process Mapping to Contingency Plans - how contingency plans integrate with existing procedures.

Session 15: Reactive Procedures: Post-trip inspection, Restart permissive, Thermal stress control. Integrated Plant Contingency Drill, Emergency Response Protocols and Activation, Documentation (required elements, Standard Contingency Checklist, Shift Log Template, Incident Reporting Format, Root Cause Analysis (RCA) template) and Regulatory Compliance for Operational, Regulatory, Legal, Audit, Organizational.

5. Instrumentation & Control Systems for Power Plant Operation and Maintenance

Course Code	:	IH-CB-0061
Course Name	:	Instrumentation & Control Systems for Power Plant Operation and Maintenance
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Technical Officer's and Staffs (For EMD, EEE & CSE)
No. Of Participants	:	30
Course Objectives	:	This training program aims to provide participants with fundamental and practical knowledge of instrumentation and control systems used in modern power plants. The course covers basic instrumentation terminology, sensors and transmitters, pressure, temperature, flow and level measurement principles, and international instrumentation standards. Participants will gain an understanding of PLC, DCS, SCADA, and Siemens SPPA-T3000 architecture, including communication protocols such as HART, Modbus and Profibus. The training also introduces signal tracking, alarm diagnostics, loop checking, and troubleshooting techniques. Through classroom lectures and field visits, participants will develop the ability to operate, maintain, and diagnose instrumentation systems safely and efficiently in power plant environments.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation

Course Outline:

Day-1

Basic Concepts of I&C system and Terminology

Session 1: Basic Concepts: Definition of instrumentation, process variables(PV), setpoint (SP), error signal in control systems, control loop, types of control loops, feedback & feedforward control, dead time, lag in a control system, drift, hysteresis, span & range, linearity, sensitivity, resolution, repeatability, accuracy & precision, calibration and configuration, control element in a control loop, controller in a control loop, gain in instrumentation, zero error, span error, fail-safe condition in instrumentation and redundancy in instrumentation.

Session 2: Sensors & Transmitters: Transmitters, difference between a sensor and a transmitter , types of transmitters ,a smart transmitter , the working principle of a pressure transmitter, What is a 4–20 mA signal and why is it used, two/three-wire transmitter, thermocouple & RTD, difference between RTD and thermocouple, capacitive level sensor ,ultrasonic level sensor ,radar level transmitter ,differential pressure transmitter ,zero trimming in a transmitter ,span trimming in a transmitter ,sensor burnout ,transmitter damping ,transmitter linearization ,HART protocol in transmitters ,zero elevation in level transmitters , zero suppression in level transmitters , the common failure modes of transmitters(Signal drift ,Output stuck at 4 or 20 ma, Electrical short/open ,Sensor failure ,Zero/span deviation), piezoelectric sensor , Hall effect sensor, How is a transmitter calibrated in the field?, Why are smart transmitters preferred over conventional transmitters?

Session 3: Pressure, Temperature, Flow & Level Measurement: Gauge Pressure (Pg), Absolute Pressure (Pa), Differential Pressure (Pd), Vacuum Pressure, the principle of a differential pressure transmitter, How does a bourdon tube pressure gauge work?, diaphragm seal in pressure measurement, hydrostatic pressure and how is it used for level measurement?, types of temperature sensors(Thermocouples, Rtds (Resistance Temperature Detectors, Thermistors, Infrared (non-contact), difference between a thermocouple and a RTD , the principle of a thermocouple, the working principle of an RTD, the common types of flow meters(Orifice plate ,Venturi tube ,Rotameter, Magnetic flow meter ,Coriolis flow meter ,Ultrasonic flow meter ,Turbine flow meter), Bernoulli's principle and how is it related to flow measurement , magnetic flow meter , Reynolds number in flow measurement , Mass & Volumetric Flow, Temperature Compensation due to fluid properties change, Level Measurement: Types of Level Measurement, Direct Methods (Sight Glass, Float Type), Indirect Methods (Differential Pressure, Ultrasonic, Radar, Capacitance, Bubbler System),Working Principles of Ultrasonic ,Radar, Capacitance, Bubbler System, Sight Glass Type level measurements. wet leg and dry leg in level measurement, the purpose of impulse lines in DP transmitters.

Session 4: Server Systems

- Servers (CS-3000, AS-3000, Burk DTS time server, Engineering System, OS/Wincc and Xenserver etc)
- Shutdowns, Commissioning and Maintenance of servers.
- Redundancy of server.

Session 5: Instrumentation Standards & Safety Systems

- Instrumentation Standards (ISA, IEC, ISO)
- Safety Systems

Day-2

Session 6: Siemens power plant

- Introduction of Siemens power plant automation

Session 7: Industrial Automation Systems & Communication Protocols

- PLC, DCS & SCADA
- Control Systems
- Communication Protocols

Session 8: SPPA T3000 System Architecture & Troubleshooting

- Architecture of SPPA T3000

- Different Components of SPPA T3000
- Signal Tracking and Troubleshooting Procedure

Session 09: DCS Architecture, Alarm Diagnostics & Loop Troubleshooting

- Architecture of DCS
- Brief Overview on alarm diagnostics in SPPA-T3000
- Loop Checking & Troubleshooting

Session 09: Plant Displays, Control Logic & Instrumentation Fault Diagnosis

- Plant display, Function Diagrams
- Brief Overview on finding out the source of the alarm from control logic
- Understanding wiring diagram
- Brief Overview on different kinds of troubles in field instrumentation
- Brief Overview on different methods for fault identification and rectification

Day-3

Session 11: Field Instruments, P&ID & Signal Management

- Field Instruments
- P&ID & Instrument Symbols
- Signal Types & Conversions

Session 12: Turbine Bypass & DEH Trip Control Systems

- Training on HP and LP Bypass Valve Pneumatic Control System
- Training on ST DEH Trip System.

Session 13: Fire Detection and Extinguishing System (Notifier and Minimax)

- Introduction to Fire Detection and Extinguishing Systems and their Importance in, Notifier Fire Detection System; Minimax Fire Extinguishing System; Smoke and Heat Detection Principles; Alarm and Control Panel Operation; Automatic Fire Suppression Mechanism; System Response and Safety Interlocks; Do's and Don'ts for Fire Safety Systems.

Session 14 & 15: Communication Protocols & Cyber security

- Modern IEC standards (e.g., IEC 62443). Hardening against cyberattacks.
- Firewalls, DMZs, and data diodes in plant networks
- Protocol security (Modbus, DNP3, OPC etc)
- Network monitoring and anomaly detection
- Differences between IT vs OT environments
- OT-specific incident response planning
- Securing Windows-based HMI and engineering workstations
- USB and removable media control
- Log analysis in ICS environments

6. Mechanical Maintenance Training Level-1

Course Code	:	IH-CB-0012
Course Name	:	Mechanical Maintenance Training Level-1
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	SAE / AE / SDE / XEN
No. Of Participants	:	30
Course Objectives	:	This training program aims to enhance basic level knowledge on power plant maintenance.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation

Course Outline:

Day 1:

Safety, Workshop Practices & Mechanical Components

Session 1: Safety Guidelines for Power Plant & Workshop Operations

- PPE usage, first aid basics, shop-floor housekeeping, electrical safety, emergency response

Session 2: Occupational Health & Safety Concerns

- LOTO fundamentals, confined space safety, fire extinguisher usage, load handling, toolbox talks

Session 3: Workshop – Safety Practices & Machining Processes

- Tools, cutting/threading principles, tolerances, coolant/lubricant use, machine upkeep

Session 4: Mechanical Equipment Overview

- Working principles of pumps, compressors, bearings, insulation, gaskets, gears, couplings, belts

Session 5: Predictive Maintenance & Condition Monitoring

- Vibration, temperature & oil analysis techniques to preempt failures
- AI-driven Predictive Maintenance (PDM) in power plants can reduce unplanned downtime by up to 90%, boost asset lifespan, and optimize maintenance costs .

Day 2:

Hydraulic & Pneumatic Systems, Lubrication, and Inspection

Session 6: Hydraulics & Pneumatics – Working Principles & Safety

- System symbols, accumulators, valves, actuators, FRL units, troubleshooting

Session 7: Basics of Friction, Wear & Lubrication

- Wear mechanisms, lubricant categories, additives, Stribeck curve, condition indicators

Session 8: Workshop – Lubricant Testing & Monitoring

- Tests for viscosity, acid/base levels, rust/foam, water content, cleanliness, and RPVOT

Session 9: Workshop – Scaffolding Safety & Construction

- Scaffold types, erection/dismantling, tagging, safety gear, capacity rating, inspection

Session 10: Electro-Hydraulics & Advanced System Design

- Proportional and servo valve control, system design, deeper troubleshooting

Day 3:

Material Handling, Lifting, Equipment Setup & Crane Operations

Session 11: Lifting Safety Fundamentals

- Slings, rigging, load estimation, center of gravity, lift planning, signaling standards

Session 12: Crane Types, Components & Setup (On-the-Job)

- Mobile crane functions, load charts, leveling, stability checks, inspection protocols

Session 13: Safe Crane Operations & Environmental Risk Mitigation

- Power-line clearance, wind/ground conditions, weather impacts, communication signals

Session 14: Case Studies & Emergency Response Drill

- Fault scenario analysis, emergency drills, hazard identification, team debriefing, evaluation

Session 15: VR-Based Emergency Simulation & Full-Scale Drill

- Immersive VR emergency response training—ideal for power plant operators
- Real-time evacuation, fault handling, post-drill AAR aligned with IAEA/FEMA protocols

7. Essential Management Skill Training

Course Code	:	IH-CB-0062
Course Name	:	Essential Management Skill Training
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Officers (AE/AM to SE)
No. Of Participants	:	30
Course Objectives	:	This training program aims to enhance participants' capacity in managing office systems efficiently.
Evaluation Method	:	Pre-Test and Post-Test

Course Outline:

Day-1

Session-01. Foundations of Management

- Role and responsibilities of a manager
- Core management functions (Planning, Organizing, Leading, Controlling)

Session-02. Employees Service Rules

- Recruitment Procedures
- Leave
- Benefits
- Gratuity

Session-03. Financial Basics for Managers

- Budgeting fundamentals
- Understanding profit & loss
- Cost control

Session-04. DoFP and Procurement Procedure

- Introduction to Delegation of Financial Power (DoFP).
- NWPGL's procurement processes and guidelines.

Session-05. Communication Skills

- Effective verbal & written communication
- Active listening
- Giving and receiving feedback

- Handling difficult conversations

Day-2

Session-06: Note, letter and formal e-mail writing

- Purpose, tone, format, and hierarchy of official notes.
- Common mistakes and how to avoid them.
- Practical exercises in drafting notes for various scenarios.
- Advanced techniques for clarity and conciseness.
- Formal and informal letter formats used within NWPGL and with external parties.
- Content structure and appropriate language.
- Structure and best practices for professional e-mail communication.
- Etiquette and effective subject lines.

Session-07. Leader vs Managers

- Difference Between Leader and Manager
- Leadership styles and when to use them
- Motivating employees
- Building high-performing teams

Session-08. Time & Priority Management

- Time management techniques
- Goal setting (SMART goals)
- Delegation skills
- Managing workload and deadlines

Session-09. Decision Making & Problem Solving

- Structured decision-making models
- Critical thinking
- Root cause analysis
- Risk assessment

Session-09: Conduct and Discipline in NWPGL

- Workplace Behavior, Attendance and Punctuality, Dress Code, Communication Standards, Handling Conflicts, Disciplinary Actions, and Company Policies.

Session-10. Basic from BD Labour Law-2006

- Employment contracts and types, working hours and overtime regulations, minimum wage standards, leave entitlements including casual, sick, maternity and festival leave, health and safety requirements, termination and resignation procedures, provident fund and gratuity benefits, dispute resolution mechanisms under the law
- Employer responsibilities for workplace safety, provision of protective equipment, health and hygiene standards, safe machinery and equipment use, reporting and handling workplace accidents, first aid facilities, welfare provisions including clean drinking water and sanitation, regulations on hazardous substances, employee rights to a safe working environment.

Day-3

Session-11. Performance Management

- Setting KPIs and targets
- Performance appraisal methods
- Coaching and mentoring employees
- Handling underperformance

Session-12. Emotional Intelligence (EQ)

- Self-awareness and self-control
- Empathy in leadership
- Managing stress and emotions

Session-13. Employee Motivation

- What motivates you at work?
- Intrinsic vs Extrinsic motivation
- Maslow's Hierarchy of Needs
- Herzberg's Two-Factor Theory
- How managers influence motivation
- Communication and behavior impact
- Practical Motivation Techniques

Session 14. Conflict Management

- Types of workplace conflict
- Conflict resolution strategies
- Negotiation skills

Session 15: AI in Office Management

- An introduction to AI tools that can enhance productivity.
- Practical applications of AI for data analysis, scheduling, and communication.

8. Fundamentals of Electrical Systems and Equipment Operation.

Course Code	:	IH-CB-0032
Course Name	:	Fundamentals of Electrical Systems and Equipment Operation.
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Technical Staffs
No. Of Participants	:	30
Course Objectives	:	This course provides basic knowledge of electrical systems, protection schemes, and instrumentation. It covers the operation and monitoring of generators, transformers, motors, and HVAC systems. Participants will learn to use testing instruments and perform inspections on battery banks. The course also introduces motor control circuits and electrical safety.

Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation
Course Outline:		
<u>Day-1</u>		
Session 1, 2 & 3: Basic Familiarization of Electrical and I&C testing and measuring instruments.		
Basic electrical safety procedures, general instrument handling, multimeter and clamp meters including Fluke digital multimeter, Fluke 381 AC/DC RMS clamp meter, Fluke 773 mA process clamp meter, insulation testers such as Fluke 1 kV, 5 kV, and 10 kV, phase rotation indicator like Fluke 9040, earth ground clamp meter using Fluke 1630-2 FC, battery measurement basics using Fluke BT521 battery analyzer and Anton Paar DMA 35 Basic density meter, introduction to portable oscilloscope with Fluke 190-062, with learning outcomes including safe usage, reading interpretation, and basic troubleshooting.		
Session 4 & 5: Basic Protection Scheme (Generator, Transformer, Bus)		
Overview of electrical protection principles, protection components such as CTs, PTs, relays, and circuit breakers, generator protection basics including differential protection, over/under voltage and frequency, and stator earth fault protection, transformer protection basics covering differential protection, Buchholz relay, temperature and pressure protection, busbar protection with zone-based protection schemes, isolator interlocking, and CT placement, relay coordination basics, practical demonstrations using simulator or software, with learning outcomes focused on understanding common protection schemes, identifying trip scenarios and relay actions, and gaining basic familiarity with relay settings.		
<u>Day-2</u>		
Session 6, 7 & 8: Operation, monitoring, and working principle of the Generator & Transformer		
- Generator construction and types including salient pole and cylindrical, operating principle of synchronous generators, generator parameters such as voltage, frequency, and power factor, generator monitoring instruments and panels, generator cooling systems, introduction to excitation system, start-up and shutdown sequences, generator alarms and protections, with learning outcomes including familiarity with generator operation and monitoring, and awareness of start/stop logic and protection interfaces. - Transformer theory including EMF, core, and windings, taps changer operation both OLTC and manual, monitoring parameters such as temperature, oil level, gas, and pressure, transformer cooling systems, interpretation of transformer nameplate data, overview of alarms and trips, with learning outcomes focused on understanding real-time monitoring data and interpreting warning signs of abnormal conditions.		
Session 09 & 10: Installation and Maintenance of HVAC (Heating, Ventilation, and Air Conditioning)		
Basic principles of HVAC, types of HVAC systems used in power plants, installation guidelines for indoor and outdoor units, routine preventive maintenance, troubleshooting common issues such as refrigerant leaks and fan failures, electrical control and protection in HVAC.		
<u>Day-3</u>		
Session 11: Inspection and Condition Monitoring of Battery Bank		
Types of battery systems including VRLA, Li-ion, and lead acid, battery installation standards, battery monitoring parameters, safety precautions for battery handling, use of battery testers such as Fluke BT521, electrolyte density and temperature checks, visual inspection techniques.		
Session 12 & 13: Motor Starting and Control Circuit Analysis		

- Motor types and characteristics, star-delta and DOL starters, motor control circuits and schematics, interlocks and protection devices, control relays, timers, and contactors, field demonstration of motor panel operation.

Session 14 & 15: Electrical Safety

- Electrical hazards including shock, arc flash, and fire, personal protective equipment for electrical work, isolation and lock-out/tag-out (LOTO) procedures, safe use of testing equipment, grounding and bonding fundamentals, first aid for electrical accidents, electrical safety standards such as NFPA 70E, IEEE, and BSTI.

9. Finance for Non-Finance Professionals

Course Code	:	IH-CB-0010
Course Name	:	Finance for Non-Finance Professionals
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Officers (Non-finance background)
No. Of Participants	:	30
Course Objectives	:	This training program aims to enhance basic level knowledge on power plant maintenance.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation

Course Outline:

Day 1

Session 01: Overview of Accounting

- Financial accounting and reporting
- Financial resources management
- Financial planning, control and decision making

Session 02 & 03: Understand Financial Reporting and Financial Statements

- Financial reporting framework
- Statement of financial position (Balance sheet) and net assets
- Statement of Comprehensive Income (Income statement) and EPS
- Statement of changes in equity
- Statement of Cash flows and CFO
- Significant accounting policies

Session 04: VAT, Income tax & Customs Duty

- A short history of VAT, Income tax, Customs in Bangladesh

- VDS Mechanism, Laws & Rules regarding VDS, when to deduct VAT at source
When VDS is not applicable, Submission of VDS to govt exchequer, Penalty where failure to VDS, Preparation of TR Challan, Monthly VAT Return
- Withholding Income tax, withholding tax return, Individual Tax Return & Corporate Tax Return

Session 05: Assessing Financial Performance

- Evaluating financial performance
- Evaluating financial position
- Evaluating cash flow position
- Techniques for financial statements analysis

Day 2

Session 06: Overview of Financial Management

- Planning, Organizing, Directing, And Controlling financial activities such as procurement and utilization of funds.
- Cash flow while maximizing profitability and minimizing risks.
- Long-term goals and maintaining financial stability.

Session 07: Corporate Budget and Capital Budgeting

- Investment and business expansions
- Capital budgeting
- Cash flow projection
- Capital budgeting techniques: NPV, IRR, payback etc.
- Considering the uncertainties

Session 08: Corporate Financing

- Equity financing
- Debt financing

Session 09: Audit of Financial Matters

- Overview of Different Financial Audits in NWPGCL
- Auditor's report
- Interim reporting
- Other decision useful information in financial reporting

Session 10: Financing in Power Sector and NWPGCL

- Financial Forecasting and Modeling
- Capital Market & Share Issue.

10. Common Job Rules and Regulations and Expected Organizational Behaviors

Course Code	:	IH-CB-0030
Course Name	:	Common Job Rules and Regulation and Expected Organizational Behaviors
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Staffs
No. Of Participants	:	30
Course Objectives	:	To implement organizational rules and behavior.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation

Course Outline:

Day-1

Session 1: Professional Etiquette and Manners at Workplace

- Professional Behavior and Positive Attitude, Respectful Verbal and Non-Verbal Communication, Proper Dress Code and Grooming, Punctuality and Time Management, Email and Phone Etiquette, Meeting Manners and Office Discipline, Gender Sensitivity and Workplace Inclusivity, Respecting Organizational Hierarchy and Culture

Session 2: Goal Setting and Performance Management

- Organization Mission & Vision, Setting Clear and Achievable Goals for Staff, Aligning Individual Objectives with Team Targets, Regular Performance Tracking and Feedback for Staff, Understanding Staff Appraisal Processes, Managing Challenges and Improving Staff Performance.

Session 3: Leave Policies and Practice

- Casual Leave, Sick Leave, Annual Leave (Earned Leave), Maternity Leave, Festival Leave, Leave on Public Holidays, and Leave Without Pay.

Session 4: Employees Benefits and Pre-condition

- Medical and Health Insurance Coverage, Provident Fund and Gratuity, Retirement Benefits and Pensions, Housing or Transportation Allowances, Training and Development Opportunities, Conditions for Benefit Withdrawal or Suspension, Service Length Requirements for Specific Benefits.

Session 5: Conduct & Discipline

- Workplace Behavior, Attendance and Punctuality, Dress Code, Communication Standards, Handling Conflicts, Disciplinary Actions, and Company Policies.

Day-2

Session 6 & 7: Labor Law-2006: Health, Safety and Welfare of Workers

- Employer responsibilities for workplace safety, provision of protective equipment, health and hygiene standards, safe machinery and equipment use, reporting and handling workplace accidents, first aid facilities, welfare provisions including clean drinking water and sanitation, regulations on hazardous substances, employee rights to a safe working environment.

Session 8: Labor Law-2006: Basic Employment Conditions

- Employment contracts and types, working hours and overtime regulations, minimum wage standards, health and safety requirements, termination and resignation procedures, provident fund and gratuity benefits, dispute resolution mechanisms under the law.

Session 09: KPI Security Instructions-2013 and Security Management System of Sirajganj Power Station.

- Overview of KPI Security Instructions-2013 guidelines, access control and authorization procedures, emergency response and reporting protocols, security patrol and monitoring duties, handling of security incidents and breaches, communication standards via SMS for real-time alerts, roles and responsibilities of security personnel/employees at Sirajganj Power Station.

Session 10: Common Diseases and precautions.

- Introduction to Common Diseases and their Importance in, Types of Common Diseases; Causes and Transmission; Symptoms and Effects; Prevention and Control Measures; Healthy Lifestyle Practices; Do's and Don'ts for Disease Prevention.

Day-3

Session 11: Cyber/Mobile Security Awareness and Best Practices.

- Introduction to Cyber Security and its Importance in, Types of Cyber Threats; Common Attack Methods; Safe Internet Practices; Password Management; Email and Phishing Awareness; Data Protection and Privacy; Do's and Don'ts for Cyber Security.

Session 12: Incident, Accident, Near-miss, Effective use of PPE & Safe Management of Special Works

- Introduction to EHS and its Importance in, Incident /Accident/near-miss; Personal Protective Equipment (PPE); Safe Management of Work at Height; Confined Space Entry; Hot Work Safety; Do's and Don'ts for EHS.

Session 13: Firefighting Control System.

- Overview of firefighting control systems, types of fire detection and alarm systems, operation of fire extinguishers and suppression equipment, emergency evacuation procedures, roles and responsibilities during fire incidents, maintenance and inspection of firefighting equipment, safety protocols and compliance with local fire safety regulations

Session 14: Stress Management

- Symptoms of stress, time and workload management, relaxation techniques, work-life balance, healthy lifestyle habits, emotional resilience, and seeking support when needed.

Session 15: Motivation and Work-Life Balance

- What is Motivation, Key factors of Motivation, Self-Motivation, Stress Management, Positive Thinking., Problems in Performance Management, Work Life Balance, Time Management, Planning etc.

11. আধুনিক ড্রাইভিং কলাকৌশল ও সড়ক আইন

Course Code	:	IH-CB-0020
Course Name	:	আধুনিক ড্রাইভিং কলাকৌশল ও সড়ক আইন
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:00 PM – 01:00 PM Session 4: 02:30 PM – 03:30 PM Session 5: 03:40 PM – 04:40 PM
Target Group	:	Drivers
No. Of Participants	:	20
Course Objectives	:	To implement government & organizational rules and behavior while driving.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation

Course Outline:**Day-1****Session 1: Professional Etiquette and Manner:**

- Professional Behavior and Positive Attitude, Respectful Verbal and Non-Verbal Communication, Proper Dress Code and Grooming, Punctuality and Time Management, Email and Phone Etiquette, Meeting Manners and Office Discipline, Gender Sensitivity and Workplace Inclusivity, Respecting Organizational Hierarchy and Culture

Session 2 & 3: Introducing Vehicle Various Parts and Its Maintenance

- Basic vehicle components such as engine, brakes, tires, battery, lights, and transmission system, routine maintenance checks, oil and fluid levels, tire pressure and rotation, brake inspection, battery care, warning light indicators, and the importance of regular servicing for safety and performance.

Session 4: Case Study: Save Driving**Session 5: Driver/Passenger Health and Safety**

- Seat belt use, avoiding distractions, good posture, staying alert, vehicle cleanliness, wearing helmets, following traffic rules, managing fatigue, and basic first aid.

Day-2**Session 6 & 7: Traffic Rules and Regulations and Punishment**

- Speed limits, traffic signals, right of way, use of seat belts and helmets, driving under influence, illegal parking, documentation requirements, fines and penalties for violations, license suspension, and legal procedures for traffic offenses.

Session 8: The Road Transport Act-2018

Session 9 & 10: Workshop

- Engine checks, opening and inspecting tires, tires change procedures, emergency handling, lubricant check, schedule servicing including filters and lubricant changes, basic first aid and vehicle fire safety.

12. যান্ত্রিক রক্ষণাবেক্ষণ ও নিরাপত্তা

কোর্স কোড	:	IH-CB-0021
কোর্সের নাম	:	যান্ত্রিক রক্ষণাবেক্ষণ ও নিরাপত্তা
কোর্সের মেয়াদ	:	০৩ দিন।
সেশন	:	১৫ টি। [প্রতি সেশন = ১ ঘন্টা]
সেশন প্ল্যান	:	১ম সেশন=০৯.৩০-১০.৩০ ঘটিকা ২য় সেশন= ১০.৫০-১১.৫০ ঘটিকা ৩য় সেশন=১২.০৫-০১.০৫ ঘটিকা ৪র্থ সেশন ০২.৩০-০৩.৩০ ঘটিকা ৫ম সেশন ০৩.৪০-০৪.৪০ ঘটিকা
টার্গেট গ্রুপ	:	কারিগরি কর্মচারী (যান্ত্রিক সংরক্ষণ বিভাগ)
অংশগ্রহণকারীর সংখ্যা	:	৩০ জন।
কোর্সের উদ্দেশ্য	:	যান্ত্রিক সংরক্ষণ বিভাগের কর্মীদের বিভিন্ন টুলসের ব্যবহার, ওয়েল্ডিং, ফ্রেন অপারেশন, গ্যাসকেট/গ্যাস প্যাকিং, লুব্রিকেন্টস, ওয়ার্কশপ মেশিনারিজ, ব্যালান্সিং, পাম্প ও ভালভ সার্ভিসিং এবং ওভারহোলিং-এ হাতে-কলমে দক্ষতা বৃদ্ধি করা।
মূল্যায়ন প্রক্রিয়া	:	প্রি-টেস্ট ও পোস্ট-টেস্ট, প্রতিটি মডিউলের শেষে কুইজ, এবং ব্যবহারিক অনুশীলন মূল্যায়ন।
কোর্স আউটলাইন :		
প্রথম দিন		
সেশন ০১: বেসিক টুলস ও মেজারিং টুলস পরিচিতি এবং ব্যবহার		
- রেঞ্জ, স্ক্রু-ড্রাইভার, প্লায়ার্স, হ্যামার - স্কেল, মেজারিং টেপ, ক্যালিপার, মাইক্রোমিটার, থিকনেস গেজ - ব্যবহারিক: হাতে-কলমে টুলস ও পরিমাপ অনুশীলন		
সেশন ০২: পাওয়ার টুলস ও লিফটিং টুলস পরিচিতি এবং ব্যবহার		
- ড্রিল, গ্রাইন্ডার, কাটিং মেশিন, জ্যাকিং টুলস - চেইন ব্লক, লিভার হেইস্ট, লিফটিং ব্লিং - ব্যবহারিক: নিরাপদ ব্যবহার অনুশীলন		
সেশন ০৩: ওয়েল্ডিং পরিচিতি ও এর প্রকারভেদ		
- ওয়েল্ডিং কি ও এর প্রয়োজনীয়তা - আর্ক, গ্যাস, টিআইজি, এমআইজি ওয়েল্ডিং এর মৌলিক ধারণা - ওয়েল্ডিং মেশিন, ইলেকট্রোড, গ্যাস সিলিন্ডার পরিচিতি		
সেশন ০৪: ওয়েল্ডিং নিরাপত্তা, ক্রটি ও WPS পরিচিতি		
- PPE ও নিরাপত্তা নির্দেশিকা - ওয়েল্ডিং ক্রটি ও প্রতিকার		

- WPS এর গুরুত্ব ও বিস্তারিত
- ব্যবহারিক: সেফটি সরঞ্জাম পরিধান অনুশীলন

সেশন ০৫: WPS অনুযায়ী রড নির্বাচন প্রক্রিয়া ও গাউজিং

- WPS অনুযায়ী সঠিক রড নির্বাচন
- গাউজিং পরিচিতি ও প্রয়োগ
- ব্যবহারিক: রড নির্বাচনের অনুশীলন

দ্বিতীয় দিন

সেশন ০৬: ক্রেনের পরিচিতি ও নিরাপত্তা নির্দেশিকা

- ওভারহেড, মোবাইল, গ্যান্ট্রি ক্রেন পরিচিতি
- নিরাপত্তা নির্দেশিকা ও ঝুঁকি
- পূর্ব প্রস্তুতি ও চেকলিস্ট

সেশন ০৭: ক্রেন লোড হ্যান্ডলিং কৌশল ও হ্যান্ড সিগন্যাল

- লোড ভারসাম্য ও নিরাপদ হ্যান্ডলিং
- বিভিন্ন হ্যান্ড সিগন্যাল পরিচিতি
- রিগিং পদ্ধতি ও ব্যবহার
- ব্যবহারিক: হ্যান্ড সিগন্যাল ও লোড লিফটিং মক ড্রিল

সেশন ০৮: ক্রেন অপারেশনে আধুনিক কন্ট্রোল সিস্টেম ও ট্রাবলশুটিং

- ক্রেনের ইলেকট্রনিক ও হাইড্রোলিক কন্ট্রোল সিস্টেম
- সাধারণ সমস্যা ও সমাধান পদ্ধতি
- নিরাপদ অপারেশন নিশ্চিতকরণের আধুনিক প্রযুক্তি

ব্যবহারিকঃ ওয়ার্কশপ

সেশন ০৯: মৌলিক ওয়েল্ডিং অনুশীলন

- আর্ক ওয়েল্ডিং স্টার্টআপ ও শাটডাউন
- বাট ও ফিলেট জয়েন্ট ওয়েল্ডিং
- ব্যবহারিক: ওয়েল্ডিং টেকনিক অনুশীলন

সেশন ১০: ওয়ার্কশপ মেশিনারিজ ও শ্যাফট ব্যালান্সিং

- লেদ মেশিন, ড্রিলিং মেশিন পরিচিতি
- শ্যাফট ব্যালান্সিং পদ্ধতি ও মেশিন ধরন
- ব্যবহারিক: মেশিন অপারেশন ও নিরাপত্তা প্রদর্শনী

তৃতীয় দিন

সেশন ১১: গ্যাসকেট ও গ্ল্যান্ড প্যাকিং পরিচিতি এবং ব্যবহার

- বিভিন্ন গ্যাসকেট ও গ্ল্যান্ড প্যাকিং এর প্রকারভেদ
- সিলেকশন চার্ট ও সঠিক ব্যবহার
- ব্যবহারিক: স্থাপন পদ্ধতি অনুশীলন

সেশন ১২: লুব্রিকেন্টস পরিচিতি ও ব্যবহার বিধি

- লুব অয়েল, গ্রীস এবং তাদের প্রয়োগ ক্ষেত্র
- ভুল লুব্রিকেন্ট ব্যবহারের ঝুঁকি
- ব্যবহারিক: লুব্রিকেশন পয়েন্ট চিহ্নিতকরণ ও পদ্ধতি

সেশন ১৩: পাম্প ও ভালভের সার্ভিসিং ও ওভারহোলিং

- পাম্প ও ভালভের কম্পোনেন্টস পরিচিতি
- সার্ভিসিং, অ্যাডজাস্টমেন্ট ও টেস্টিং
- ব্যবহারিক: ডিসম্যান্টলিং, ইনস্পেকশন ও রিয়ারাসেম্বলি

সেশন ১৪: ইন্ডাস্ট্রিয়াল মেইনটেনেন্স ম্যানেজমেন্ট ও ট্রেন্ডস

- রক্ষণাবেক্ষণ পরিকল্পনা ও প্রেডিক্টিভ মেইনটেনেন্স কৌশল
- আধুনিক মনিটরিং প্রযুক্তি (ভাইব্রেশন অ্যানালাইসিস, থার্মাল ইমেজিং)
- মেইনটেনেন্স ডেটা ম্যানেজমেন্ট ও কর্মশালা

সেশন ১৫: অটোমেটেড ওয়েল্ডিং প্রযুক্তি ও রোবোটিক্স পরিচিতি

- অটোমেটেড ও রোবোটিক ওয়েল্ডিং সিস্টেমের ভূমিকা
- সুবিধা, সীমাবদ্ধতা ও ব্যবহার ক্ষেত্র
- রোবোটিক্স পরিচালনা ও প্রাথমিক রক্ষণাবেক্ষণ

13. কর্মক্ষেত্রে পেশাদারিত্ব, ছুটি, সুবিধাদি, শৃঙ্খলা ও শান্তি

কোর্স কোড	:	IH-CB-0019
কোর্সের নাম	:	কর্মক্ষেত্রে পেশাদারিত্ব, ছুটি, সুবিধাদি, শৃঙ্খলা ও শান্তি
কোর্সের মেয়াদ	:	০৩ দিন।
সেশন	:	১৫ টি। [প্রতি সেশন = ১ ঘণ্টা]
সেশন প্ল্যান	:	১ম সেশন=০৯.৩০-১০.৩০ ঘটিকা ২য় সেশন= ১০.৫০-১১.৫০ ঘটিকা ৩য় সেশন=১২.০৫-০১.০৫ ঘটিকা ৪র্থ সেশন ০২.৩০-০৩.৩০ ঘটিকা ৫ম সেশন ০৩.৪০-০৪.৪০ ঘটিকা
টার্গেট গ্রুপ	:	সকল স্তরের কর্মচারী।
অংশগ্রহণকারীর সংখ্যা	:	৩০ জন।
কোর্সের উদ্দেশ্য	:	অংশগ্রহণকারীদের কর্মক্ষেত্রে পেশাদারিত্ব, নৈতিক আচরণ, দলগত কাজ, নিরাপত্তা সচেতনতা, এবং প্রাতিষ্ঠানিক মূল্যবোধ সম্পর্কে বিস্তারিত ধারণা প্রদান ও ব্যক্তিগত উন্নয়ন।
মূল্যায়ন প্রক্রিয়া	:	প্রি-টেস্ট ও পোস্ট-টেস্ট

কোর্স আউটলাইন :**প্রথম দিন****সেশন ১: শিষ্টাচার, আদব-কায়দা ও কর্মক্ষেত্রে আচরণ**

- নম্রতা, কথার সুর ও বৈঠকের সময় নীরব থাকার নিয়ম
- উর্ধ্বতন কর্তৃপক্ষের প্রতি শ্রদ্ধাশীল মনোভাব
- কর্মক্ষেত্রে পেশাদার আচরণের প্রয়োজনীয়তা

সেশন ২: কোম্পানির ভিশন অর্জনে প্রতিটি কর্মীর ভূমিকা

- প্রতিটি কাজের উদ্দেশ্য ও তার গুরুত্ব
- পরিষ্কার-পরিচ্ছন্নতা, ড্রাইভিং, রায়া ইত্যাদির মাধ্যমে প্রতিষ্ঠানের লক্ষ্যে অবদান
- ব্যক্তিগত ভূমিকা ও প্রতিষ্ঠানের সাফল্যের সম্পর্ক

সেশন ৩: ইউনিফর্ম, সাজসজ্জা এবং উপস্থিতি

- পরিষ্কার পোশাক ও সময় মতো কর্মস্থলে উপস্থিতির গুরুত্ব
- ব্যক্তিগত পরিচ্ছন্নতা ও স্বাস্থ্যবিধি
- পরিচয়পত্র দৃশ্যমানভাবে পরিধানের নিয়মাবলী

সেশন ০৪: পরিচ্ছন্ন কর্মক্ষেত্র

- কর্মক্ষেত্রে পরিষ্কার-পরিচ্ছন্নতার গুরুত্ব
- বর্জ্য পৃথকীকরণ ও পরিবেশবান্ধব নিষ্পত্তি
- বিদ্যুৎ ও পানির সাশ্রয়ী ব্যবহার

সেশন ০৫: চাকরির সুবিধাদি

- আর্থিক সুবিধাদি (বোনাস, ভাতা, পেনশন)
- অ-আর্থিক সুবিধাদি (স্বাস্থ্যসেবা, প্রশিক্ষণ, কর্মপরিবেশ)
- সুবিধাদি পাওয়ার শর্তাবলী

দ্বিতীয় দিন

সেশন ০৬: ছুটির ধরণ ও প্রক্রিয়া

- বিভিন্ন ধরণের ছুটি (বার্ষিক, রোগ, জরুরি)
- ছুটির আবেদন, অনুমোদন ও প্রত্যাখ্যানের নিয়মাবলী
- ছুটির পরিকল্পনা ও ব্যবস্থাপনা

সেশন ০৭: আচরণবিধি ও শৃঙ্খলাবিধি

- NWPGL-এর আচরণবিধির মূলধারাসমূহ
- শৃঙ্খলা ভঙ্গের ধরন ও ফলাফল
- শৃঙ্খলা রক্ষার গুরুত্ব

সেশন ০৮: শাস্তিমূলক ব্যবস্থা

- শাস্তির বিভিন্ন ধরণ (মৌখিক, লিখিত সতর্কতা, বরখাস্ত)
- শাস্তির ক্ষেত্রে ন্যায়বিচারের প্রক্রিয়া
- আপিল ও পুনর্বিবেচনার নিয়মাবলী

সেশন ০৯: কর্মক্ষেত্রে শ্রম আইন পরিচিতি

- শ্রম আইন ও কর্মচারীর অধিকার সম্পর্কিত ধারণা
- কর্মক্ষেত্রে আইনগত বাধ্যবাধকতা ও দায়িত্ব
- আইনগত সমস্যায় সমাধানের পথ ও কৌশল
- সামাজিক যোগাযোগ মাধ্যম ব্যবহার

সেশন ১০: অগ্নি নিরাপত্তা ও জরুরি বহির্গমন সচেতনতা

- অগ্নিকাণ্ডের কারণ ও প্রতিরোধ
- অগ্নি নির্বাপক যন্ত্রের ব্যবহার
- জরুরি বহির্গমনের নিয়মাবলী ও নিরাপদ চলাচল

তৃতীয় দিন

সেশন ১১: টাইম ম্যানেজমেন্ট

- দৈনন্দিন কাজের পরিকল্পনা ও অগ্রাধিকার নির্ধারণ
- কার্যকর শিডিউল তৈরি এবং সময়সীমা পরিচালনা
- সময় অপচয় কমানো, প্রোডাক্টিভিটি বৃদ্ধি এবং শটকাট ও প্রোডাক্টিভিটি টুল ব্যবহার করে কার্যক্রম দক্ষভাবে সম্পন্ন করা

সেশন ১২: ব্যক্তিগত আর্থিক ব্যবস্থাপনা

- মাসিক আয় ও ব্যয়ের পরিকল্পনা ও হিসাব রাখা
- সঞ্চয় এবং বাজেট তৈরির কৌশল
- ঋণ ব্যবস্থাপনা ও সুদের হিসাব
- আর্থিক লক্ষ্য নির্ধারণ এবং অর্থনৈতিক সিদ্ধান্ত গ্রহণে প্রোডাক্টিভিটি টুল ব্যবহার

সেশন ১৩: সাধারণ রোগ ও প্রতিরোধ

- সাধারণ রোগ এবং এর গুরুত্ব সম্পর্কে পরিচিতি, সাধারণ রোগের ধরনসমূহ; কারণ ও সংক্রমণের উপায়; উপসর্গ ও প্রভাব; প্রতিরোধ ও নিয়ন্ত্রণ ব্যবস্থা; স্বাস্থ্যকর জীবনযাপন পদ্ধতি; রোগ প্রতিরোধে করণীয় ও বর্জনীয়।

সেশন ১৪: জেভার সচেতনতা, ধর্মীয় ও সাংস্কৃতিক সংবেদনশীলতা সকল বিশ্বাসের প্রতি শ্রদ্ধাশীল হওয়ার গুরুত্ব

- জবরদস্তি থেকে বিরত থাকার নৈতিক দায়িত্ব
- ধর্মীয় ও সাংস্কৃতিক সংবেদনশীলতার গুরুত্ব

সেশন ১৫: দলবদ্ধ কাজ ও "আমরা, আমি নই" সংস্কৃতি

- প্রতিযোগিতার পরিবর্তে সমন্বয়ের গুরুত্ব
- পারস্পরিক শ্রদ্ধা ও ঐক্যের ভূমিকা
- কার্যকর দলগত কাজের কৌশল ও অভ্যাস

14. Contingency Plan of Plant Operation

Course Code	:	IH-CB-0073
Course Name	:	Contingency Plan of Power Plant Operation
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 09:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:05 PM – 01:05 PM Session 4: 2:00 PM – 3:00 PM Session 5: 3:00 PM – 4:00 PM
Target Group	:	Technical Staffs
No. Of Participants	:	30
Course Objectives	:	Enable field-level operators to identify abnormal conditions early, respond safely to contingencies, and report accurately to the control room to prevent equipment damage, protect personnel, and ensure continuous and reliable power plant operation.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation

Course Outline:

Day-1

Theory: Equipment Inspection & Basic Contingencies (Focus: Mechanical & Operations)

Session 1: Role of Work Assistant in Contingency Situations

- Inspect equipment: Pumps, Motors, Valves, Compressors, Fans, Cranes, Transformers, Cooling systems, Chemical systems
- Golden rule: Never attempt repair alone. Always report first.
- Chain of communication: Work Assistant → Field Operator → Control Room

Session 2: How to Inspect Equipment – Look, Listen, Feel, Smell, Think

- Pump inspection: Leakage, Vibration, Temperature, Noise
- Motor & compressor contingencies:

- Burning smell → Motor winding overheating
- Strong vibration → Bearing damage
- Loud knocking → Mechanical failure
- Valve, piping & leakage contingencies:
 - Steam leakage (hissing, white cloud)
 - Water leakage (puddles, corrosion)
 - Oil leakage (stains, fire risk)
 - Valve stuck (won't move, unusual force needed)

Session 3: Major Plant Contingencies – Fire (Part 1 – I&C & Electrical)

Equipment that can catch fire – Oil systems:

- GT Lube Oil System (Main Oil Pump, Tank, Cooler – thousands of liters hot oil)
- ST Lube Oil System (AC/DC Pumps, Tank)
- Gas Booster Compressor (Lube oil at high pressure)
- Fuel Oil System (Injection Pump)
- Hydraulic Oil System (Pumps, Cooler Fan – high pressure oil)
- EH Oil System (Pumps, Purifier – special oil)
- Transformers (GT Main, GT Aux, ST Main, Station Transformer – 1000s liters oil)

Fire due to electrical fault:

- Motors (bearings get hot, wires short)
- Cables (thousands in trays – one short = fire spreading)
- MCC Rooms (many electrical panels together)
- Battery Rooms (hydrogen gas from batteries)
- UPS Rooms (electronic equipment gets hot)
- 6.6 KV Rooms (high voltage, big sparks)

(Practical / Field visit – 2 sessions)

Session 4: Field Inspection Practice (Mechanical & Electrical)

- Visit pump house, motor area, valve gallery, transformer yard
- Each participant identifies:
 - One sign of possible leakage
 - One unusual vibration/noise (mock or real)
 - One fire risk (oil near hot surface, cable damage)

Session 5: Reporting Drill

- Practice verbal reporting: *“I see oil leaking from pump suction flange. Location: Pump P-123. No fire yet. Reporting to field operator now.” *
- Fill mock inspection logbook

Day-2

Theory: Fire & Chemical Contingencies (Focus: Electrical, I&C, Chemical)

Session 6: Fire Due to Mechanical Causes & Early Detection

Fire due to mechanical:

- Air Compressor (Hot discharge, oil mist)
- Workshop (Grinders create sparks, oil rags)
- Cranes (Electrical motors, grease)
- Vent Fans (Bearings overheat)
- Heaters (Lube Oil Heater, Air Dryer Heater – directly hot)

How to know fire is starting – Use your senses:

- Eyes: Small smoke from motor/transformer, oil dripping on hot pipe, discolored paint, glowing metal, sparking

- Nose: Burning plastic, burning oil, burning rubber, acrid/sour smell (electrical fire)
- Ears: Crackling (arcing), popping (small explosions), hissing from transformer

Session 7: Fire Extinguisher & First Response

- Never fight fire alone – raise alarm first
- Fire extinguisher types for different systems:
 - CO₂ – electrical fires
 - Dry powder – oil & electrical
 - Foam – oil fires
 - Water – NOT for electrical or oil
- Safe distances for electrocution:
 - Up to 415V – Don't touch live parts
 - 6.6 KV – 1 meter
 - 11 KV – 1.5 meters
 - 33 KV – 2 meters
 - 132 KV – 3 meters
 - 220 KV – 4 meters
 - 400 KV – 5 meters

Session 8: Environmental & Chemical Contingencies

- Signs of chemical leak: Unusual smell, discoloration, dead vegetation, irritated eyes/throat, hissing sound from container
- Confined space – never enter without permit & standby
- Excavation over 5 ft – stay away unless assigned
- Work at height, heat stress, burns – basic awareness

(Practical / Field visit – 2 sessions)

Session 9: Fire Risk Walkdown

- Visit: Lube oil tank area, cable trench, battery room, workshop, transformer yard
- Identify: 3 potential fire ignition sources
- Locate: Fire extinguishers nearby – identify type without touching

Session 10: Fire Extinguisher Drill (Mock)

- Demonstrate PASS (Pull, Aim, Squeeze, Sweep)
- Each participant practices once on mock fire simulator

Day-3

Theory: System Failure, Blackout, Emergency Recovery & Documentation

Session 11: System Failure & Emergency Response

- Grid failure (blackout):
 - What work assistant does: Stay in place if safe, do not enter dark confined spaces, report location via walkie/phone, await instructions
- Fuel supply contingency – reduced load, possible shutdown – know to standby
- Major equipment failure – unusual noise/vibration/smoke – evacuate area, report immediately
- Control system or electrical contingency – panel alarms, flickering lights – do not touch, report

Session 12: Emergency Recovery & Post-Event Actions

- Resource management during contingencies: Fire protection (extinguishers, hydrants), medical (first aid box location, ambulance number)
- Post-trip inspection – after turbine/boiler trip:
 - Check for leaks, hot spots, unusual readings (assistants: visual check only)
- Restart permissive – only after supervisor clearance
- Thermal stress control – avoid rapid cooling/heating, stay away from blowdown valves

Session 13: Integration, Drill & Documentation

- Process mapping to contingency plans – how daily inspection connects to formal emergency procedures
- Integrated plant contingency drill – your role in a mock drill (fire, blackout, chemical spill)
- Emergency response protocols & activation – who calls, who evacuates, where to assemble
- Documentation required:
 - Flash report (what, where, when, what seen/heard/smelled)
 - Logbook entry
 - Regulatory compliance for operational, legal, audit, organizational purposes
 -

(Practical / Field visit – 2 sessions)

Session 14: Blackout & Evacuation Drill (Simulated)

- Lights off in safe area – practice:
 - Stay calm
 - Use torch (if assigned)
 - Move to emergency assembly point
 - Head count by supervisor

Session 15: Integrated Field Exercise & Documentation Practice

- Walk to 4 locations:
 1. Water treatment area – identify 2 chemical safety signs
 2. Electrical panel room – identify 2 fire risks
 3. Pump area – identify 2 mechanical inspection points
 4. Transformer yard – identify safe distance marker (if any)
- Each participant verbally reports findings
- Fill a mock Flash Report form

COURSE CONTENTS OF KHULNA 225 MW CCPP

1. Practical Generator & Transformer Protection and Coordination

Course Code	:	IH-CB-0074
Course Name	:	Practical Generator & Transformer Protection and Coordination
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 09:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:05 PM – 01:05 PM Session 4: 2:15 PM – 3:15 PM Session 5: 3:30 PM – 4:30 PM
Target Group	:	Technical Officers
No. Of Participants	:	25
Course Objectives	:	This training aims to develop a solid understanding of generator and transformer protection schemes, along with the principles of protection coordination. Participants will gain practical skills in relay setting calculations, secondary injection testing, and real-world fault identification and rectification through field-based exercises.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation

Course Outline:

Day-1 Fundamentals & Generator Protection

Session 1: Protection Fundamentals

- Protection philosophy: selectivity, sensitivity, speed, reliability
- Types of faults in power systems
- Primary vs backup protection concept
- Introduction to protection zones
- **Learning Outcome:** Understanding of protection objectives and system faults

Session 2: CT & PT for Protection

- CT basics: ratio, accuracy class, burden, saturation, polarity
- PT/VT basics and applications
- Errors in measurement and impact on protection
- Practical issues in CT/PT circuits
- **Learning Outcome:** Ability to interpret CT/PT behavior in protection schemes

Session 3: Introduction to Protection Relays & Instruments

- Electromechanical vs numerical relays
- Basic relay functions and logic
- Overview of testing instruments (relay test kit)
- Safety practices during testing
- **Learning Outcome:** Familiarity with modern relays and testing tools

Session 4: Generator Protection – Part 1

- Generator fault types and abnormal conditions
- Differential protection (87G) principle and scheme
- Stator earth fault protection methods
- **Learning Outcome:** Understanding of core generator protection schemes

Session 5: Generator Protection – Part 2

- Over/under voltage and frequency protection
- Reverse power protection
- Loss of excitation protection
- Overview of generator protection coordination
- **Learning Outcome:** Ability to identify generator protection functions and trip logic

Day-2: Transformer Protection & Coordination

Session 1 & 2: Transformer Protection Transformer fault types

- Differential protection (87T) and vector group considerations
- Bias, slope, and restraint concept
- Overfluxing (V/Hz) protection
- **Learning Outcome:** Understanding transformer electrical protection schemes

Session 3,4 & 5: Protection Coordination Principles, Relay Setting & Coordination Calculation

- Coordination philosophy (generator–transformer–feeder)
- Time-current characteristics (TCC curves)
- Grading margin and selectivity
- Backup protection strategy
- **Learning Outcome:** Ability to understand coordination between protection levels
- Setting calculation for overcurrent and earth fault relays
- Differential relay setting basics (pickup, slope)

Over fluxing setting calculation

Day-3: Testing, Field Practice & Evaluation

Session 1,2 & 3: Relay Testing & Secondary Injection

- Secondary injection test procedure
- Testing of relay functions
- Verification of trip logic
- Common testing mistakes

Session 4: Field Visit / Practical Exercise

- Protection panel familiarization
- Identification of relays, wiring, and schemes
- Fault finding exercise (real/simulated)
- Rectification and discussion
- **Learning Outcome:** Practical exposure to real systems and fault handling

Session 5: Evaluation – Practical & Feedback

- Practical assessment (relay testing / fault analysis)
- Participant feedback session
- Final discussion and clarification

2. Instrumentation & Control Systems Level-01

Course Code	:	IH-CB-0005
Course Name	:	Instrumentation & Control Systems Level-01
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 09:30 AM – 10:30 AM Session 2: 11:00 AM – 12:00 AM Session 3: 12:00 PM – 01:00 PM Session 4: 2:00 PM – 3:00 PM Session 5: 3:30 PM – 4:30 PM
Target Group	:	Technical Officer's and Staffs (For E, EEE & CSE)
No. Of Participants	:	25
Course Objectives	:	This training program is designed to equip participants with both fundamental and practical knowledge of instrumentation and control systems utilized in power plants. The course encompasses essential instrumentation terminology, as well as the principles and applications of sensors and transmitters, including measurement techniques for pressure, temperature, flow, and level. It also introduces relevant international instrumentation standards. Participants will gain a comprehensive understanding of control system architectures such as PLC, SCADA, Alpa Control System, and ABB Symphony Plus, along with key communication protocols including HART, Modbus, and Profibus. In addition, the program covers critical operational skills such as signal tracking, alarm diagnostics, loop checking, and systematic troubleshooting techniques. Through a combination of structured classroom instruction and practical field exposure, participants will develop the competence required to operate, maintain, and diagnose instrumentation systems safely and efficiently within power plant environments
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation
Course Outline:		
Day-1		
Session 1: Familiarization of I&C system Terminology:		

Process Value (PV), set point (SP), error signal in control systems, control loop, types of control loops, feedback & feed forward control, dead time, lag in a control system, drift, hysteresis, span & range, linearity, sensitivity, resolution, repeatability, accuracy & precision, calibration and configuration, control element in a control loop, controller in a control loop, gain in instrumentation, zero error, span error, fail-safe condition in instrumentation and redundancy in instrumentation.

Session 2: Sensors & Transmitters: Sensors: Transmitters, difference between a sensor and a transmitter, types of transmitters, a smart transmitter, the working principle of a pressure transmitter, What is a 4–20 mA signal and why is it used, two/three-wire transmitter, thermocouple & RTD, difference between RTD and thermocouple, capacitive level sensor, ultrasonic level sensor, radar level transmitter, differential pressure transmitter, zero trimming in a transmitter, span trimming in a transmitter, sensor burnout, transmitter damping, transmitter linearization, HART protocol in transmitters, zero elevation in level transmitters, zero suppression in level transmitters, the common failure modes of transmitters (Signal drift, Output stuck at 4 or 20 ma, Electrical short/open, Sensor failure, Zero/span deviation), piezoelectric sensor, Hall effect sensor, How is a transmitter calibrated in the field?, Why are smart transmitters preferred over conventional transmitters?

Session 3 & 4: Pressure, Temperature, Flow & Level Measurement: Gauge Pressure (Pg), Absolute Pressure (Pa), Differential Pressure (Pd), Vacuum Pressure, the principle of a differential pressure transmitter, How does a bourdon tube pressure gauge work?, diaphragm seal in pressure measurement, hydrostatic pressure and how is it used for level measurement?, types of temperature sensors (Thermocouples, Rtds (Resistance Temperature Detectors, Thermistors, Infrared (non-contact), difference between a thermocouple and a RTD, the principle of a thermocouple, the working principle of an RTD, the common types of flow meters (Orifice plate, Venturi tube, Rotameter, Magnetic flow meter, Coriolis flow meter, Ultrasonic flow meter, Turbine flow meter), Bernoulli's principle and how is it related to flow measurement, magnetic flow meter, Reynolds number in flow measurement, Mass & Volumetric Flow, Temperature Compensation due to fluid properties change, Level Measurement: Types of Level Measurement, Direct Methods (Sight Glass, Float Type), Indirect Methods (Differential Pressure, Ultrasonic, Radar, Capacitance, Bubbler System), Working Principles of Ultrasonic, Radar, Capacitance, Bubbler System, Sight Glass Type level measurements. wet leg and dry leg in level measurement, the purpose of impulse lines in DP transmitters.

Session 5:

1. Instrumentation Standards (ISA, IEC, ISO)
2. P&ID & Instrument Symbols
3. Safety Systems

Day-2

Session 1, 2 & 3:

4. PLC, DCS & SCADA
5. Different Components of GT Alpha and Protection Controller
6. Different types of Servers (Application, Historian Server)
7. Control Systems (Open/Closed Loop, PID)
8. Communication Protocols (HART, Modbus, Profibus)
9. Modbus Engineering protocol.

10. Power Supply & Barriers
11. Study Different types of Control Architectures

Session 4 & 5: ABB Control System

12. Details Discussion on ABB Control System
13. Program Logic Upload & download Procedure of ABB Control System
14. Maintenance and Troubleshooting of ABB Control System WorkStation

Day-3

Session 1, 2 & 3:

15. HP and LP Bypass Valve Pneumatic Control System
16. ST Load Control Operation
17. Boiler Drum Level Principal
18. Fire Detection and Extinguishing System
19. ST DEH Trip System

Session 4: Communication Protocols:

20. **Communication:** Communication Protocols, Communication redundancy (hot standby)

Session 5: Cyber security

Meets modern IEC standards (e.g., IEC 62443). Hardened against cyberattacks.

3. Steam turbine & HRSG start-up, operation, shutdown, and trip handling

Course Code	:	IH-CB-0076
Course Name	:	Steam turbine & HRSG start-up, operation, shutdown, and trip handling
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 09:30 AM – 10:30 AM Session 2: 10:45 AM – 11:45 AM Session 3: 12:00 PM – 01:00 PM Session 4: 2:00 PM – 3:00 PM Session 5: 3:00 PM – 4:00 PM
Target Group	:	Technical Officers of Operation
No. Of Participants	:	30
Course Objectives	:	To efficient operation
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation
Course Outline		
Day-1		
Session 1: (Fundamentals – Beginner Level)		

- 01: Introduction to Power Plant Cycles & Role of Steam Turbine and HRSG
- 02: Basic Thermodynamics (Rankine Cycle, Heat Transfer Principles)
- 03: Overview of Steam Turbine Types, Components & Working Principle
- 04: HRSG Fundamentals – Design, Components & Heat Recovery Process
- 05: Steam & Water Properties, Phase Changes & Flow Behavior

Session 2: (System Understanding – Beginner to Intermediate)

- 01: Steam Turbine Auxiliary Systems (Lube Oil, Seal Oil, Gland Steam)
- 02: HRSG Systems – Economizer, Evaporator, Superheater & Reheater
- 03: Feedwater System & Condensate System Overview
- 04: Instrumentation Basics (Pressure, Temperature, Flow, Level)
- 05: Control System Basics (DCS, Interlocks, Protection Philosophy)

Session 3: (Start-up Fundamentals – Intermediate Level)

- 01: Pre-Start Checks for Steam Turbine & HRSG
- 02: Steam Turbine & HRSG Cold, Warm & Hot Start Concepts
- 03: HRSG & Steam Turbine Start-up Sequence (Rolling, Warming, Synchronization)
- 04: Thermal Stress & Expansion Management during Start-up
- 05: Safety Interlocks & Permissive in Start-up

Session 4: (Operation Fundamentals – Intermediate Level)

- 01: Normal Operation of HRSG – Load Variation & Control
- 02: Steam Turbine Load Operation & Efficiency Optimization
- 03: Steam Temperature & Pressure Control Methods
- 04: Condenser Operation & Vacuum System Management
- 05: Monitoring Parameters & Performance Indicators

Session 5: (Shutdown Procedures – Intermediate Level)

- 01: Types of Shutdowns (Normal, Emergency, Forced)
- 02: Steam Turbine Shutdown Sequence & Cooling Process
- 03: HRSG Shutdown Procedures & Drum Level Control
- 04: Thermal Stress & Protection during Shutdown
- 05: Post-Shutdown Inspection & System Preservation

Day-2

Session-01: (Trip & Protection – Intermediate to Advanced Level)

- 01: Steam Turbine Protection Systems (Overspeed, Low Oil Pressure, Vibration)
- 02: HRSG Protection Systems (Drum Level, Pressure, Temperature Trips)
- 03: Common Trip Causes & Root Cause Understanding
- 04: Immediate Operator Actions During Trip Conditions
- 05: Post-Trip Analysis & Safe Recovery Procedures

Session-02: (Advanced Operation – Advanced Level)

- 01: Load Following & Grid Interaction
- 02: Sliding Pressure vs Constant Pressure Operation
- 03: Efficiency Optimization & Heat Rate Improvement

- 04: Steam Turbine Governing & Control Valve Operation
- 05: HRSG Optimization Techniques & Heat Balance

Session-03: (Advanced Start-up & Shutdown – Advanced Level)

- 01: Fast Start & Cycling Operation Challenges
- 02: Start-up Optimization Techniques (Time vs Stress Balance)
- 03: Shutdown Optimization & Thermal Fatigue Reduction
- 04: Advanced Interlocks & Control Logic Interpretation
- 05: Case Studies on Start-up & Shutdown Failures

Session-04: (Troubleshooting & Abnormal Operation – Advanced Level)

- 01: Abnormal Steam Turbine Behavior (Vibration, Temperature Rise)
- 02: HRSG Abnormalities (Tube Leakage, Fouling, Carryover)
- 03: Instrument Failure & Control System Malfunctions
- 04: Decision-Making Under Emergency Conditions
- 05: Human Factors & Operator Error Prevention

Session-05: (Super Advanced Level – Expert Operation & Analysis)

- 01: Dynamic Simulation & Transient Analysis of Start-up/Shutdown
- 02: Root Cause Analysis Techniques for Trips & Failures
- 03: Advanced Protection Logic & Trip Philosophy Design
- 04: Reliability, Availability & Maintainability (RAM) Concepts
- 05: Best Practices, Lessons Learned & International Standards

4. GT, ST & HRSG Preservation Procedure

Course Code	:	IH-CB-0075
Course Name	:	GT, ST & HRSG Preservation Procedure
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 09:30 AM – 10:30 AM Session 2: 10:45 AM – 11:45 AM Session 3: 12:00 PM – 01:00 PM Session 4: 2:00 PM – 3:00 PM Session 5: 3:00 PM – 4:00 PM
Target Group	:	Technical Officers of operation
No. Of Participants	:	30
Course Objectives	:	To achieve preservation procedure
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation
Course Outline:		
Day-01		

Session-01: Preservation Fundamentals – Basic Level

01. Introduction to Preservation Philosophy in Power Plants
02. Importance of Preservation for Reliability & Asset Life
03. Corrosion Mechanisms & Material Degradation
04. Preservation Classification (Short-term / Long-term / Layup)
05. Safety & Environmental Considerations

Session-02: General Preservation Systems & Methods

01. Wet Preservation Principles
02. Dry Preservation Principles
03. Chemical Preservation Methods & Inhibitors
04. Dehumidification & Moisture Control Techniques
05. Nitrogen Blanketing Fundamentals

Session-03: Gas Turbine Preservation – Basic

01. Gas Turbine Preservation Overview
02. Compressor Section Preservation Basics
03. Combustion System Preservation
05. Lubrication & Seal Oil System Preservation

Session-04: Gas Turbine Preservation – Advanced

01. Rotor Protection & Turning Gear Strategy
02. Inlet Air System & Filter House Preservation
03. Fuel Gas / Liquid Fuel System Preservation
04. Long-Term Storage & Idle Condition Management
05. Inspection & Monitoring During Preservation

Session-05: HRSG Preservation – Basic

01. HRSG Preservation Philosophy & Risks
02. Wet Preservation (Filling & Chemical Dosing)
03. Dry Preservation (Draining & Dry Air Method)
04. Role of Water Chemistry in Preservation
05. Preservation of Economizer, Evaporator & Superheater

Day-02**Session-01: HRSG Preservation – Advanced**

01. Multi-Pressure HRSG Preservation Strategy
02. Nitrogen Blanketing & Sealing Techniques
03. Preservation During Short vs Long Shutdown
04. Instrumentation & Monitoring During Layup
05. Restart & Commissioning After Preservation

Session-02: Steam Turbine Preservation – Basic

01. Steam Turbine Preservation Overview
02. Moisture Control & Internal Corrosion Prevention
03. Lubrication Oil System Preservation
04. Gland Sealing & Vacuum System Protection
05. Auxiliary Systems Preservation

Session-03: Steam Turbine Preservation – Advanced

01. Rotor Bow Prevention & Turning Gear Operation
02. Dry Air / Nitrogen Preservation Techniques
03. Condenser & Cooling Water System Preservation
04. Long-Term Layup & Idle Turbine Management
05. Inspection, Monitoring & Record Keeping

Session-04: Integrated Plant Preservation Strategy

01. Combined Cycle Plant Preservation Coordination
02. Preservation During Planned vs Forced Outage
03. Risk Assessment & Failure Prevention Strategy
04. Preservation SOPs, Checklists & Documentation
05. Troubleshooting Preservation Failures

Session-05: Super Advanced & Expert Level Preservation

01. Advanced Corrosion Control & Material Protection Techniques
02. Predictive Monitoring During Long-Term Preservation
03. Preservation Optimization for Fast Restart Capability
04. International Standards & OEM Guidelines (GE/Siemens/MHI)
05. Case Studies, Lessons Learned & Best Practices

5. Training Course on Valves: Types, Construction, Maintenance, Overhauling

Course Code	:	IH-CB-0077
Course Name	:	Training course on valves: types, construction, maintenance, overhauling
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 09:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:05 PM – 01:05 PM Session 4: 2:15 PM – 3:15 PM Session 5: 3:30 PM – 4:30 PM
Target Group	:	Officers & Staff from MMD & Operation
No. Of Participants	:	25
Course Objectives	:	To be acquainted with proper operation and maintenance of valves.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation
Course Outline:		

Day 1: Valve Fundamentals, Types, and Selection

Session 1: Introduction to Valves & Flow Control

- Role of valves in piping systems, key terminologies, and safety basics.

Session 2: Linear Motion Valves (Construction & Operation)

- Gate, Globe, Diaphragm, and Needle valves: Components and internal anatomy.

Session 3: Rotary Motion Valves (Construction & Operation)

- Ball, Plug, and Butterfly valves: Design, materials, and quick-turn mechanisms.

Session 4: Check and Special Purpose Valves

- Swing check, lift check, piston check, and pressure relief valves.

Session 5: Valve Selection and Sizing Basics

- Matching valve types to process conditions (P&ID, ANSI/API standards).

Day 2: Actuation, Installation, and Maintenance

Session 1: Valve Actuators and Positioners

- Manual gears, electric, pneumatic, and hydraulic actuators.

Session 2: Valve Installation Best Practices

- Orientation, flange management, torquing, and gasket selection.

Session 3: Preventive Maintenance Techniques

- Routine inspection, cleaning, lubrication (stems, gearboxes).

Session 4: Sealing, Packing, and Leak Management

- Adjusting packing gland nuts, replacing seals (packing leaks, bonnet leaks).

Session 5: Troubleshooting Common Valve Failures

- Diagnosing sticking, internal leakage (seat wear), and external leaks.

Day 3: Overhauling, Repair, and Testing

Session 1: Overhauling Procedure: Disassembly & Inspection

- Lockout-Tagout (LOTO), stripping components, and identifying wear.

Session 2: Cleaning and Component Restoration

- Cleaning techniques (degreaser/solvent), inspection for corrosion and erosion.

Session 3: Lapping and Seat Refurbishment

- Procedures for lapping seat surfaces to achieve tight seals.

Session 4: Reassembly and Final Inspection; Testing, Certification, and Documentation

- Reassembly sequence, torquing to specs, and final QC checks.
- Hydrostatic/pneumatic pressure testing and documentation.

Session 5: Evaluation

6. Training Course on Corrosion Prevention, (Cathodic Protection, Painting, Preservation Etc.)

Course Code	:	IH-CB-0074
Course Name	:	Training course on Corrosion prevention, (cathodic protection, painting, preservation etc.)
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 09:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:05 PM – 01:05 PM Session 4: 2:15 PM – 3:15 PM Session 5: 3:30 PM – 4:30 PM
Target Group	:	Technical Officers & Staff
No. Of Participants	:	25
Course Objectives	:	To be acquainted with proper operation and maintenance of valves.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation

Course Outline:

Day 1: Corrosion Fundamentals & Coatings

Session 1: Introduction to Corrosion Science

- Electrochemistry of corrosion (Anode, Cathode, Electrolyte, Path).
- Forms of corrosion (Uniform, Galvanic, Pitting, Crevice, CUI).

Session 2: Environmental Factors & Material Selection

- Impact of water, soil, atmosphere, and acidity.
- Selecting corrosion-resistant materials (Alloys, Stainless Steel).

Session 3: Principles of Protective Coatings

- How coatings work (Barrier, Inhibitive, Sacrificial).
- Types of industrial paints (Epoxy, Polyurethane, Zinc-rich).

Session 4: Surface Preparation Techniques

- Standards (ISO 8501, SSPC).
- Abrasive blasting, water jetting, and power tool cleaning.

Session 5: Coating Inspection & Quality Control

- Dry Film Thickness (DFT) measurement (SSPC-PA 2).
- Holiday detection (pinhole testing) and adhesion testing.

Day 2: Cathodic Protection (CP) Systems

Session 1: Basics of Cathodic Protection

- Cathodic Protection fundamentals.
- Galvanic series and potential measurements.

Session 2: Sacrificial Anode Systems (SACP)

- Design, installation, and materials (Zinc, Magnesium, Aluminum).
- Applications for pipelines and tank bottoms.

Session 3: Impressed Current Cathodic Protection (ICCP)

- ICCP components (Rectifiers, Anode beds).
- Advantages and limitations vs. SACP.

Session 4: CP Survey Methods & Data Interpretation

- Structure-to-electrolyte potential measurements.
- Soil resistivity measurements.

Session 5: Troubleshooting & Interference

- Stray current corrosion and mitigation.
- Coating defects and cathodic disbandment.

Day 3: Specialized Prevention, Lubrication & Preservation

Session 1: Corrosion Inhibitors

- Types (Anodic, Cathodic, Mixed).
- Application in water systems, oil, and gas pipelines.

Session 2: Corrosion Under Insulation (CUI) & Mitigation

- Mechanisms of CUI and risk assessment.
- Proper insulation design and material selection.

Session 3: Lubrication as Corrosion Prevention

- Lubricants as moisture barriers for moving parts.
- Specialized greases and oils for corrosion inhibition.

Session 4: Temporary Preservation & Storage

- Vapor Corrosion Inhibitors (VCI) and desiccant use.
- Long-term storage requirements for machinery and pipelines.

Session 5: Evaluation

7. নিরাপদ ড্রাইভিং, সড়ক নিরাপত্তা ও ভেহিকল ফল্ট ডায়াগনসিস প্রশিক্ষণ

Course Code	:	IH-CB-0020
Course Name	:	নিরাপদ ড্রাইভিং, সড়ক নিরাপত্তা ও ভেহিকল ফল্ট ডায়াগনসিস প্রশিক্ষণ
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 09:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:05 PM – 01:05 PM Session 4: 2:15 PM – 3:15 PM Session 5: 3:30 PM – 4:30 PM
Target Group	:	Drivers
No. Of Participants	:	20
Course Objectives	:	চালকদের পেশাগত দক্ষতা, ট্রাফিক আইন সম্পর্কে জ্ঞান এবং যানবাহন ব্যবস্থাপনায় দায়িত্বশীলতা বৃদ্ধি করতঃ নিরাপদ ড্রাইভিং নিশ্চিত করা।
Evaluation Method	:	Post-Test + Daily Practical Observation
Course Outline:		
Day-1		
সেশন-১: ড্রাইভারদের পেশাগত দায়িত্ব ও আচরণঃ		
যানবাহন ব্যবস্থাপনা (গাড়ি চালানোর পূর্বে প্রাথমিক পরীক্ষা inspection, যানবাহনের সঠিক ব্যবহার ও যত্ন ও গাড়ির পরিচ্ছন্নতা বজায়) সংক্রান্ত দায়িত্ব, কর্তৃপক্ষের সাথে যোগাযোগ ও রিপোর্টিং, যাত্রীর সাথে করণীয় আচরণ, যানবাহনের নথিপত্র (বৈধ ড্রাইভিং লাইসেন্স, গাড়ির রেজিস্ট্রেশন, ফিটনেস ও বীমা, লগবুক ও অন্যান্য রেকর্ড সঠিকভাবে সংরক্ষণ) সংক্রান্ত দায়িত্ব সম্পর্কে মৌলিক ধারণা।		
সেশন-২ ও ৩: যানবাহনের বিভিন্ন অংশ ও রক্ষণাবেক্ষণ পরিচিতিঃ		
যানবাহনের মৌলিক অংশসমূহ: ইঞ্জিন, ব্রেক, টায়ার, ব্যাটারি, লাইট ও ট্রান্সমিশন সিস্টেম পরিচিতি, নিয়মিত রক্ষণাবেক্ষণ কার্যক্রম ও দৈনিক চেকলিস্ট, ইঞ্জিন অয়েল ও অন্যান্য তরলের মাত্রা পর্যবেক্ষণ, টায়ারের চাপ পরীক্ষা ও রোটেশন, ব্রেকিং সিস্টেম পরিদর্শন, ব্যাটারির যত্ন ও রক্ষণাবেক্ষণ, ড্যাশবোর্ডের সতর্ক সংকেত (Warning Indicators) বোঝা, নিরাপদ ও কার্যকর পারফরম্যান্স নিশ্চিত করতে নিয়মিত সার্ভিসিংয়ের গুরুত্ব।		
সেশন৪: কেস স্টাডি— নিরাপদ ড্রাইভিং (Safe Driving):		
সড়ক দুর্ঘটনার কেস স্টাডি বিশ্লেষণ, দুর্ঘটনার কারণ ও ফলাফল পর্যালোচনা, সঠিক ও ভুল ড্রাইভিং আচরণের তুলনামূলক আলোচনা, নিরাপদ ড্রাইভিং সিদ্ধান্ত গ্রহণের ঝুঁকিপূর্ণ আচরণ চিহ্নিতকরণ ও দুর্ঘটনা প্রতিরোধে করণীয় ব্যবস্থা এবং প্রতিরক্ষামূলক ড্রাইভিং (Defensive Driving) ধারণা।		
সেশন৫: চালক ও যাত্রী—র নিরাপত্তা:		

- সিটবেল্ট ব্যবহারের গুরুত্ব, ড্রাইভিংয়ের সময় মনোযোগ ধরে রাখা ও সতর্কতা অবলম্বনে করণীয়, ড্রাইভিং-এর সময় সঠিক বসার ভঙ্গি (Proper Posture) এবং দীর্ঘ সময় ড্রাইভিংয়ের ক্ষেত্রে শারীরিক ও মানসিক চাপ নিয়ন্ত্রণের উপায়, যানবাহনের পরিচ্ছন্নতা নিশ্চিতকরণ, ট্রাফিক আইন অনুসরণ, প্রাথমিক চিকিৎসা (First Aid) সম্পর্কে মৌলিক ধারণা

Day-2

সেশন-৬ ও ৭: ট্রাফিক আইন ও বিধি-বিধান

- ট্রাফিক সিগন্যাল, সড়ক চিহ্ন (Road Signs), গতি সীমা ও নিয়ন্ত্রণ, পার্কিং বিধি সম্পর্কে মৌলিক ধারণা

সেশন-৮: The Road Transport Act-2018

সেশন-৯: ও ১০: Vehicle Troubleshooting (যানবাহনের ত্রুটি নির্ণয় ও সমাধান) (প্রাক্টিক্যাল)

- ইঞ্জিন/ব্রেক সিস্টেম/ ব্যাটারি/কুলিং সিস্টেম/বৈদ্যুতিক সংক্রান্ত সমস্যা ও এর সম্ভাব্য কারণ চিহ্নিতকরণ, প্রাথমিক করণীয়

8. Occupational Health, Safety & ISO Management Training

Course Code	:	IH-CB-0061
Course Name	:	Occupational Health, Safety & ISO Management Training
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 09:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:05 PM – 01:05 PM Session 4: 2:15 PM – 3:15 PM Session 5: 3:30 PM – 4:30 PM
Target Group	:	Technical Staffs
No. Of Participants	:	25
Course Objectives	:	To enhance employees' knowledge and skills in safety, quality management, and emergency first aid.
Evaluation Method	:	Pre-Test and Post-Test + Daily Practical Observation

Course Outline:

Day-1

Session 1: Common EHS Practices (Occupational Health Safety):

- Introduction to EHS and its Importance in Organizations; Incident /Accident/near-miss; Machine Guard, Isolation of Hazardous Energy, Electrical Safety, Electromagnetic safety at workplace

Session 2: Special Work Safety

- Safe Management of Work at Height; Confined Space Entry; Hot Work Safety; Lifting Work Safety, Do's and Don'ts for EHS.

Session 3: Fire Safety Management & Emergency Preparedness

- What is fire, Types of fire, Importance of fire extinguishing cylinder, Physical identification of fire extinguishing cylinder, Types of fire extinguishing cylinder, Use of fire extinguishing cylinder, Different types of firefighting systems, What to do in case of fire, Emergency Preparedness Plan (EPP), Emergency Response Team and their responsibilities

Session 4 & 5: CPR Cardio-Pulmonary Resuscitation

- Cardiac arrest, chest compressions, rescue breaths, the CAB method, use of AED, and emergency response steps.

Day-2

Session 6: First Aid Box Equipment identification & Use of these instruments

- Bandages, antiseptic wipes, adhesive tape, scissors, gloves, tweezers, pain relief medication, CPR mask, cold packs, and how to properly use each item during emergencies.

Session 7: ISO 9001: Quality Management System

Course Contents:

1. The clauses of the ISO 9001 standards.
2. The documents associated with ISO 9001 standards.
3. Control of documents.

ISO 14001: Environment Management System

Course Contents :

1. The clauses of the ISO 14001: Environment Management System.
2. The documents associated with the ISO 14001 standards.
3. The required controls for maintaining environment related legal requirements.
4. The procedure of AIA assessment.
5. Audit checklist for checking ISO 14001 standards.

ISO18001: Occupational Health, Safety and Environment Management System

Course Contents :

1. The clauses of the ISO 18001 standards.
2. The required necessary steps for ensuring safety of the officers and the staffs.
3. Different types of safety gears and where to use those.
4. The types of safety hazards and the procedures to mitigate those.

Session 8: IMS Manual, ISO related all documents

1. IMS Policy, IMS Manual
2. Control of documents & records
3. QHSE related forms & documents

Session 9: ISO audit findings & legal requirements

9. Discuss various internal and external ISO audit findings
10. Discuss various legal requirements for the power plant.

Session 10: Evaluation

9. কর্মক্ষেত্রে পেশাদারিত্ব, ছুটি, সুবিধাদি, শৃঙ্খলা ও শান্তি

Course Code	:	IH-CB-0078
Course Name	:	কর্মক্ষেত্রে পেশাদারিত্ব, ছুটি, সুবিধাদি, শৃঙ্খলা ও শান্তি
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 09:30 AM – 10:30 AM Session 2: 10:50 AM – 11:50 AM Session 3: 12:05 PM – 01:05 PM Session 4: 2:15 PM – 3:15 PM Session 5: 3:30 PM – 4:30 PM
Target Group	:	All Staff
No. Of Participants	:	40
Course Objectives	:	কর্মক্ষেত্রে পেশাদারিত্ব, শৃঙ্খলা, নীতিমালা অনুসরণ ও দায়িত্বশীল আচরণ নিশ্চিত করার সক্ষমতা উন্নয়ন করা।
Evaluation Method	:	Post-Test + Daily Practical Observation

Course Outline:

Day-1

সেশন-১: পেশাদারিত্ব, দায়িত্ব ও আচরণ

- কর্মক্ষেত্রে পেশাদারিত্বের মৌলিক ধারণা, দায়িত্বশীল আচরণ, সময়ানুবর্তিতা, অফিসের নিয়ম-কানুন মেনে চলা এবং ব্যক্তিগত আচরণের মাধ্যমে প্রতিষ্ঠানের ইমেজ বজায় রাখার গুরুত্ব সম্পর্কে আলোচনা।
- সহকর্মী ও উর্ধ্বতনদের সাথে যথাযথ আচরণ, কাজের প্রতি জবাবদিহিতা, দায়িত্ব পালনে সততা ও নিষ্ঠা, এবং কর্মক্ষেত্রে ইতিবাচক মনোভাব গড়ে তোলার উপায়।

সেশন-২: কর্মক্ষেত্রে নৈতিকতা ও শিষ্টাচার

- সততা, স্বচ্ছতা, পারস্পরিক সম্মান, গোপনীয়তা রক্ষা এবং প্রতিষ্ঠানের সম্পদের সঠিক ব্যবহার সম্পর্কিত নীতিমালা।

- ব্যক্তিগত স্বার্থ ও প্রতিষ্ঠানের স্বার্থের মধ্যে ভারসাম্য রক্ষা, অসদাচরণ পরিহার এবং নৈতিক সিদ্ধান্ত গ্রহণের কৌশল।

সেশন-৩: কার্যকর যোগাযোগ দক্ষতা

- মৌখিক ও লিখিত যোগাযোগের সঠিক পদ্ধতি, স্পষ্টভাবে কথা বলা, সক্রিয়ভাবে শোনা (Active Listening) এবং ভুল বোঝাবুঝি কমানোর উপায়।
- অফিসিয়াল ইমেইল, নোট, রিপোর্ট লেখার নিয়ম এবং পেশাদার ভাষা ব্যবহারের কৌশল।

সেশন-৪: সময় ব্যবস্থাপনা ও দায়িত্ববোধ

- কাজের অগ্রাধিকার নির্ধারণ, সময় পরিকল্পনা (Daily Planning), ডেডলাইন মেনে চলা এবং সময় অপচয় রোধের উপায়।
- দায়িত্ব গ্রহণ, কাজের প্রতি প্রতিশ্রুতি এবং উৎপাদনশীলতা বৃদ্ধির কৌশল।

সেশন-৫: দলগত কাজ ও সমন্বয়

- দলগত কাজের গুরুত্ব, পারস্পরিক সহযোগিতা, দায়িত্ব ভাগাভাগি এবং দলের লক্ষ্য অর্জনে সমন্বিত প্রচেষ্টা।
- মতবিরোধ সমাধান, সম্মানজনক আচরণ বজায় রাখা এবং টিম পারফরম্যান্স উন্নয়ন।

Day-2

সেশন-৬: ছুটির ধরন ও নীতিমালা

- নৈমিত্তিক ছুটি, অসুস্থতার ছুটি, অর্জিত ছুটি ইত্যাদির মৌলিক ধারণা এবং ছুটি গ্রহণের প্রক্রিয়া।
- পূর্ব অনুমোদন, জরুরি ছুটির ক্ষেত্রে অবহিতকরণ এবং ছুটির অপব্যবহারের প্রভাব।

সেশন-৭: উপস্থিতি ও সময়ানুবর্তিতা

- নির্ধারিত সময়ে অফিসে উপস্থিতির গুরুত্ব, দেরি করার প্রভাব এবং নিয়মিত অনুপস্থিতির নেতিবাচক ফলাফল।
- শৃঙ্খলাবদ্ধ উপস্থিতি বজায় রাখার মাধ্যমে কর্মদক্ষতা বৃদ্ধি।

সেশন-৮: কর্মীদের সুবিধাদি (Benefits)

- বেতন কাঠামো, বিভিন্ন ভাতা, বোনাস, চিকিৎসা সুবিধা এবং অন্যান্য প্রাতিষ্ঠানিক সুবিধা সম্পর্কে ধারণা।
- কর্মীদের সন্তুষ্টি ও কর্মদক্ষতা বৃদ্ধিতে সুবিধাদির ভূমিকা।

সেশন-৯: কর্মচারীর অধিকার ও দায়িত্ব

- কর্মক্ষেত্রে নিরাপদ পরিবেশ, ন্যায্য বেতন, সম্মানজনক আচরণ পাওয়ার অধিকার।
- প্রতিষ্ঠানের প্রতি দায়িত্ব, নিয়ম মেনে চলা, সংভাবে কাজ করা এবং কর্মসংস্কৃতি বজায় রাখা।

সেশন-১০: কর্মক্ষেত্রে নিরাপত্তা ও সুস্থতা

- নিরাপদ কর্মপরিবেশ নিশ্চিতকরণ, ঝুঁকি প্রতিরোধ এবং দুর্ঘটনা ঘটলে করণীয়।
- প্রাথমিক চিকিৎসা (First Aid), মানসিক চাপ ব্যবস্থাপনা এবং সুস্থ কর্মপরিবেশ বজায় রাখা।

Day-3

সেশন-১১: কর্মক্ষেত্রে শৃঙ্খলা

- শৃঙ্খলার ধারণা, অফিসের নিয়ম-কানুন মেনে চলার গুরুত্ব এবং সুশৃঙ্খল কর্মপরিবেশ তৈরির উপায়।
- শৃঙ্খলা বজায় রাখলে কর্মদক্ষতা ও প্রতিষ্ঠানের উন্নয়ন কিভাবে হয়।

সেশন-১২: অসদাচরণ (Misconduct) চিহ্নিতকরণ

- ছোট ও বড় ধরনের অসদাচরণ (দেরি, অবহেলা, অসভ্য আচরণ, দুর্নীতি ইত্যাদি) সম্পর্কে ধারণা।
- অসদাচরণের প্রভাব এবং প্রতিরোধমূলক ব্যবস্থা।

সেশন-১৩: শাস্তিমূলক ব্যবস্থা (Disciplinary Action)

- সতর্কবার্তা, লিখিত নোটিশ, কারণ দর্শানো, সাময়িক বরখাস্ত এবং চাকরি বাতিলের ধাপসমূহ।
- সঠিক তদন্ত, প্রমাণ সংরক্ষণ এবং ন্যায়সঙ্গত সিদ্ধান্ত গ্রহণের গুরুত্ব।

সেশন-১৪: অভিযোগ ও গ্রিভেন্স ব্যবস্থাপনা

- অভিযোগ দাখিলের প্রক্রিয়া, নিরপেক্ষ তদন্ত এবং দ্রুত সমাধানের কৌশল।
- গোপনীয়তা বজায় রাখা এবং কর্মীদের আস্থা অর্জন।

সেশন-১৫: মূল্যায়ন, ফিডব্যাক ও ফলো-আপ

- প্রশিক্ষণের সারসংক্ষেপ, শেখা বিষয়সমূহ পর্যালোচনা এবং বাস্তব প্রয়োগের পরিকল্পনা।
 - অংশগ্রহণকারীদের ফিডব্যাক সংগ্রহ এবং ভবিষ্যৎ উন্নয়ন পরিকল্পনা নির্ধারণ।

COURSE CONTENTS OF BHERAMARA 415 COMBINED CYCLE POWER STATION

1. Training on Gas Turbine Maintenance, Vibration Management & Power Plant Reliability

Course Code		IH-CB-0063
Course Name	:	Training on Gas Turbine Maintenance, Vibration Management, and Power Plant Reliability.
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:40 AM – 11:40 AM Session 3: 11:50 PM – 12:50 PM Session 4: 02:15 PM – 03:15 PM Session 5: 03:25 PM – 04:25 PM
Target Group	:	XEN/SDE/AE
No. Of Participants	:	20
Total Hour	:	20*3*8 = 480 Hour
Course Objectives	:	This training is designed to enhance the technical competences of technical officers of NWPGL.
Evaluation Method	:	Pre-Test and post-test (Online MCQ), Written Evaluation (Offline)

Course Outline

Day-1: Maintenance of Gas Turbine

Session-1: Main Components, Function of Components and Types of Gas Turbine (GT).

Session-2: Importance of Maintenance and Maintenance Philosophy.

Session-3: Precaution measures before starting the Schedule Maintenance.

Session-4: Inspection Type, Interval and Activities of Different Types of Inspection.

Session-5: Schedule Maintenance of Gas Turbine and List of typical Spare Parts for CI/MI.

Day-2: Basic of Vibration, Causes of Vibration & Management of Vibration Problem in Power Plants

Session-1: Fundamentals of Vibration- Definition, fundamentals of vibration, some terminology relating to vibration in power plants.

Session-2: Types of Vibration- Types of vibration like Harmonic vibration, Periodic vibration, Explosive vibration, Irregular vibration, free vibration, Forced vibration.

Session-3: Causes of Increased Vibration- Causes of vibration, Defects causing vibration, Vibration caused by misalignment, Vibration of motor, Vibration of bearing.

Session-4: Vibration measurement- Vibration measurement in amplitude, displacement, velocity and acceleration, Precautions while measuring vibration.

Session-5: Vibration Management - Stiff rotor, Elastic rotor, Vibration measuring instrument and analyzer, Condition monitoring and its methods.

Day-3: Power Plant Reliability & Characteristics

Session-1: Basic reliability concept

Session-2: Reliability of a complex system

Session-3: Equipment Reliability

Session-4: Maintenance Scheduling

Session-5: Recap, Q&A and Open Discussion

2. Training on Good Governance, Leadership, Team Building and Corruption Prevention in Workplace.

Course Code	:	IH-CB-0065
Course Name	:	Training on Good Governance, Leadership, Team Building and Corruption Prevention in Workplace.
Duration	:	02 Days
Number of Sessions	:	10
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:40 AM – 11:40 AM Session 3: 11:50 PM – 12:50 PM Session 4: 02:15 PM – 03:15 PM Session 5: 03:25 PM – 04:25 PM
Target Group	:	Officers/Staffs
No. Of Participants	:	20
Total Hour	:	20*2*8 = 320 Hour
Course Objectives	:	This training is designed to help officers and staffs of NWPGL to understand the concepts of Good Governance, Leadership, Team Building and Corruption Prevention in Workplace.
Evaluation Method	:	Pre-Test and post-test (Online MCQ), Written Evaluation (Offline)
Course Outline		

Day-1:

Session 1: Good Governance.

- Understanding Good Governance
- Core principles of good governance

Session 2: Good Governance.

- Governance structures & accountability

Session 3: Good Governance.

- Ethics, integrity, and anti-corruption links

Session 4: Leadership & Team Building in an Organization.

- Understanding Leadership
- Understanding Team Building

Session 5: Leadership & Team Building in an Organization.

- Practical team building and team development concepts

Day 2

Session 1: Leadership & Team Building in an Organization.

- Communication
- Motivation and
- Conflict management

Session 2: Corruption and Its Dimensions in Organizations, and Ways of Preventing It.

- Understanding Corruption
- Causes, Impacts, and Red Flags

Session 3: Corruption and Its Dimensions in Organizations, and Ways of Preventing It.

- Corruption Prevention and Control
- Organizational Integrity and integrity frameworks.

Session 4: Corruption and Its Dimensions in Organizations, and Ways of Preventing It.

- Interactive activities (case study, role play, action plan)

Session 5: Recap, Q&A and Open Discussion

3. Operation & Maintenance of Combined Cycle Power Plant

Course Code	:	IH-CB-0067
Course Name	:	Operation & Maintenance of Combined Cycle Power Plant
Duration	:	04 Days
Number of Sessions	:	20
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:40 AM – 11:40 AM Session 3: 11:50 PM – 12:50 PM Session 4: 02:00 PM – 03:00 PM Session 5: 03:00 PM – 04:00 PM
Target Group	:	Technical Officers (SAE to XEN)
No. Of Participants	:	20
Total Hour	:	20*4*8 = 640 Hour
Course Objectives	:	This training is designed to improve the understanding of officers of NWPGL about both operation and maintenance of a combined cycle power plant.
Evaluation Method	:	Pre-Test and post-test (Online MCQ), Written Evaluation (Offline)

Course Outline

Day 1

Plant Operation Module

Session 1: Introduction to Combined Cycle Power Plant Operation

- Basic overview of CCPP configuration
- Gas turbine, HRSG and steam turbine integration
- Key performance terms: heat rate and efficiency

Session 2: Gas Turbine Operation and Performance

- Combustion dynamics and firing temperature control
- Compressor performance, surge and stall awareness
- Performance degradation and optimization techniques

Session 3: HRSG Operation and Thermal Stress Management

- Multi-pressure HRSG design and operation
- Drum level control challenges, swelling and shrinking
- Thermal stress, ramp rate limitations and equipment life considerations

Session 4: Steam Turbine Operation and Optimization

- Steam path, governing system and control philosophy

- Vibration, axial displacement and protection aspects
- Efficiency improvement and operational constraints

Session 5: Integrated Plant Start-up and Shutdown Philosophy

- Cold, warm and hot start analysis
- Start-up curves and critical hold points
- Inter-departmental coordination and risk mitigation

Day 2

Session 6: Control Room Operation and Decision Making

- Alarm prioritization and operator response strategy
- Human-machine interface optimization
- Event analysis and operational judgement

Session 7: Abnormal Operation, Trip Analysis and Root Cause Approach

- Major trip scenarios: GT trip, ST trip and grid disturbance
- Sequence of Events analysis
- Root cause identification and corrective action

Session 8: Performance Monitoring and Heat Rate Improvement

- KPI monitoring: heat rate and auxiliary power consumption
- Loss analysis and benchmarking
- Continuous performance improvement strategies

Mechanical Maintenance Module

Session 9: Maintenance of Gas Turbine

- Main Components of Gas Turbine (GT)
- Function of the GT Components
- Types of GT
- Importance of Maintenance
- Maintenance Philosophy
- Precaution measures before starting the Schedule Maintenance
- Inspection Type
- Interval of Inspection
- Activities of Different Types of Inspection
- Schedule Maintenance of Gas Turbine
- List of typical Spare Parts for CI/MI.

Session 10: Rotating Equipment Maintenance Strategy

- Predictive, preventive and condition-based maintenance
- Vibration analysis fundamentals and interpretation
- Bearing failure analysis and lubrication management

Session 11: Basic of Vibration, Causes of Vibration & Management of Vibration Problem in Power Plants

- Fundamentals of Vibration- Definition, fundamentals of vibration, some terminology relating to vibration in power plants
- Types of Vibration- Types of vibration like Harmonic vibration, Periodic vibration, Explosive vibration, Irregular vibration, free vibration, Forced vibration
- Causes of Increased Vibration- Causes of vibration, Defects causing vibration, Vibration caused by misalignment, Vibration of motor, Vibration of bearing
- Vibration measurement- Vibration measurement in amplitude, displacement, velocity and acceleration, Precautions while measuring vibration
- Vibration Management - Stiff rotor, Elastic rotor, Vibration measuring instrument and analyzer, Condition monitoring and its methods

Session 12: Pumps, Fans and Compressors – Performance and Failure Analysis

- Hydraulic performance curve analysis
- Cavitation, recirculation and efficiency loss
- Troubleshooting real-case scenarios

Day 3

Session 13: Valve Engineering and Failure Diagnostics

- Control valve characteristics and sizing concepts
- Actuator performance and common failures
- Valve passing, leakage and operational impact

Session 14: Thermal Equipment and Piping Integrity

- Thermal expansion, stress and support system
- Pipe failure modes and creep/fatigue analysis
- Inspection planning and maintenance strategy

Session 15: Power Plant Reliability & Characteristics

- Basic reliability concept,
- Reliability of a complex system,
- Equipment Reliability,
- Maintenance Scheduling.

Electrical System Module

Session 16: Power System Operation in CCPP

- Generator synchronization and load sharing
- Grid interaction, stability and disturbances
- Black start and islanding operation philosophy

Session 17: Protection System and Fault Analysis

- Generator, transformer and feeder protection schemes
- Relay coordination and fault clearing sequence
- Case study of electrical faults

Day 4

Session 18: Electrical Equipment Maintenance and Reliability

- Transformer health monitoring: DGA and insulation assessment
- Switchgear reliability and arc flash hazards
- Predictive maintenance techniques

Instrumentation and Control Module

Session 19: Process Control Philosophy

- PID tuning, cascade and feedforward control
- Control loop performance optimization
- Stability and oscillation analysis

Session 20: DCS, PLC and Automation System Architecture

- DCS structure, redundancy and communication
- PLC integration and logic control
- Cybersecurity awareness in industrial control systems

4. NWPGL Service rules, Labour Law 2006, and Government Service Rules

Course Code	:	IH-CB-0068
Course Name	:	NWPGL Service rules, Labour Law 2006, and Government Service Rules
Duration	:	04 Days
Number of Sessions	:	20
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:40 AM – 11:40 AM Session 3: 11:50 PM – 12:50 PM Session 4: 02:00 PM – 03:00 PM Session 5: 03:00 PM – 04:00 PM
Target Group	:	All Officer
No. Of Participants	:	20
Total Hour	:	20*4*8 = 640 Hour
Course Objectives	:	This training is designed to build understanding and proper application of Employee Service Rules In comparison with Labour Law 2006 and Govt. Service Rules which will enhance NWPGL officer's knowledge about service rules.
Evaluation Method	:	Pre-Test and post-test (Online MCQ), Written Evaluation (Offline)
Course Outline:		

Day 1

Session 1: Recruitment and Promotion Policy

- Recruitment Criteria and process
- Promotion Policy 2026 of NWPGL

Session 2: Leave Rules and Conditions

- FAP, HAP, Maternity, Quarantine, Encashment, EOL, and leave registers

Session 3: Conduct, Discipline & Penalties

- Chapter 7: Rules 43–49
- Code of conduct, inquiry process, disciplinary actions

Session 4: Appeals, Suspension & Service Record

- Rules 50–55
- Appeal procedures, suspension protocols, summary proceedings

Session 5: Disciplinary Case Study and Roleplay

- Practical simulation of a disciplinary hearing
- Group activity: Preparing a charge sheet and defense response

Day 2

Session 6: Resignation, Termination & Retirement

- Chapter 9: Rules 56–58
- Types of separation, voluntary retirement scheme (VRS), discharge process, Bar to Resignation under suspension, reinstatement.

Session 7: Delegation of Administrative Power

- Interpretation of DoAP table
- Levels of authority, financial limits, practical delegation mapping

Session 8: General Conditions of Service in Bangladesh Labour Law 2006

- Bangladesh Labour Law 2006, Chapter-02

Session 9: Maternity Benefit, Health & Hygiene in Bangladesh Labour Law 2006

- Chapter-04 (Maternity Benefit), Chapter-05 (Health & Hygiene)

Session 10: Safety, special provisions relating to health, hygiene and safety.

- Chapter-06 and 07 of Bangladesh Labour Law-2006

Day 3

Session 11: Welfare, Working Hours and Leave, Compensation for Injury by Accident,

- Chapter-08, 09 and 12 of Bangladesh Labour Law-2006

Session 12: Disputes, labour court, labour appellate tribunal, legal proceedings, etc.

- Chapter-14 of Bangladesh Labour Law-2006

Session 13: Penalty and Procedure

- Chapter-19 of Bangladesh Labour Law-2006

Session 14: Provident Fund, Gratuity, workers participation in companies' profits

Session 15: Amendment of Labour Law 2006

- অধ্যাদেশ নং-৬৫, ২০২৫; বাংলাদেশ শ্রম আইন ২০০৬ এর অধিকতর সংশোধনকল্পে প্রণীত অধ্যাদেশ

Day 4 (সরকারি চাকুরী আইন-২০১৮)

Session 16: ছুটি ও কর্ম-মূল্যায়ন

Session 17: সরকারি সেবা প্রদান নিশ্চিতকরণ

Session 18: সরকারি কর্মচারীর অনুসরণীয় নীতি, আচরণ, শৃঙ্খলা, ইত্যাদি

Session 19: সরকারি কর্মচারীর অনুসরণীয় নীতি, আচরণ, শৃঙ্খলা, ইত্যাদি

Session 20: সরকারি কর্মচারীর ফৌজদারি অপরাধ

5. Basic Training Course on First Aid

Course Code	:	IH-CB-0028
Course Name	:	Basic Training Course on First Aid
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:40 AM – 11:40 AM Session 3: 11:50 PM – 12:50 PM Session 4: 02:00 PM – 03:00 PM Session 5: 03:00 PM – 04:00 PM
Target Group	:	First Aider and other staffs
No. Of Participants	:	25
Frequency	:	02 Times
Course Objectives	:	To prevent and minimize life risk at emergency situation.
Evaluation Method	:	Pre-Test and Post-Test + Written Exam

Course Outline:

Day-1

Session 1: Occupational Health Safety

- EHS Management System and its Importance in Organizations; Incident, Accident; Incident, Accident Investigation and CAPA; Managing Workplace Incidents/Accidents; Personal Protective Equipment (PPE); Safe Management of Work at Height; Confined Space Entry; Hot Work Safety. Do's and Don'ts for EHS. Machine Guard, Isolation of Hazardous Energy, Electrical Safety, Hazardous Chemical Management, Laboratory Safety Practices and Procedures, Environmental Stewardship, Safety Cultures and Leadership Responsibilities

Session 2 & 3: CPR Cardio-Pulmonary Resuscitation

- Cardiac arrest, chest compressions, rescue breaths, the CAB method, use of AED, and emergency response steps.

Session 4 & 5: Fracture Management

- Identifying signs of a fracture, types of fractures, immobilizing the injured area, using splints or slings, avoiding movement, basic first aid steps, and the importance of seeking immediate medical help.

Day-2

Session 6: Burn Injury Management & How to control Bleeding

- Types of Burns, Assessing Burn Severity, Cooling the Burn, Covering the Burn, Avoiding Infection, Do's and Don'ts in Burn Care, Pain Management, When to Seek Medical Help.
- Identifying Types of Bleeding, Applying Direct Pressure, Use of Bandages, Elevation of Injured Area, Pressure Points, Using Tourniquets (if trained), Signs of Severe Blood Loss, When to Seek Medical Help.

Session 7: Management of any animal bite & Eye Injury

- Cleaning the Wound, Preventing Infection, Rabies Awareness, When to Seek Medical Help, Eye Injury Types, Immediate First Aid, Avoiding Further Damage, Eye Irrigation, Protecting the Eye, Seeking Emergency Care.

Session 08: Hazard Identification and Risk Assessment (HIRA)

- Recognizing workplace hazards, categorizing risks, evaluating the likelihood and impact of hazards, risk control measures, documentation and reporting, employee involvement, and continuous monitoring and review.

Session 09: First Aid Box Equipment identification & Use of these instruments

- Bandages, antiseptic wipes, adhesive tape, scissors, gloves, tweezers, pain relief medication, CPR mask, cold packs, and how to properly use each item during emergencies.

Session 10: How to use O2 cylinder & Chocking, Drowning & Fainting

- Checking the cylinder and regulator, attaching the flow meter, setting the correct oxygen flow rate, using masks or nasal cannulas, safety precautions, storage guidelines, and emergency shutdown procedures.
-
- Recognizing signs and symptoms, immediate first aid steps for choking (like the Heimlich maneuver), rescue techniques for drowning victims, placing fainted persons in the recovery position, ensuring airway clearance, calling for emergency help, and preventing these emergencies.

Day-3**Session 11: Dengue, Chikungunya, Malaria Etc.**

- Causes and transmission, common symptoms, prevention methods like mosquito control, use of mosquito nets and repellents, importance of early diagnosis, treatment options, and community awareness.

Session 12: Cervical Cancer, Influenza, Typhoid

- Causes and risk factors, symptoms and signs, prevention methods such as vaccines and hygiene, early detection, treatment options, and importance of public awareness.

Session 13: Fire Hazard & Extinguishing Process

- Causes of fire, types of fire, fire prevention measures, use of fire extinguishers (water, foam, CO2, dry powder), evacuation procedures, fire alarms, and emergency response actions.

Session 14: Diabetes Mellitus, Hypertension

- Causes and risk factors, symptoms, lifestyle and dietary management, medication adherence, monitoring blood sugar and blood pressure, complications, and importance of regular health check-ups.

Session 15: Stroke, Heart Attack, Heat Stroke

- Recognizing symptoms, immediate first aid steps, risk factors, prevention strategies, emergency response, and when to seek medical help.

6. Fundamentals of Combined Cycle Power Plant Operation

Course Code	:	IH-CB-0064
Course Name	:	Fundamentals of Combined Cycle Power Plant Operation
Duration	:	05 Days
Number of Sessions	:	25
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:40 AM – 11:40 AM Session 3: 11:50 PM – 12:50 PM Session 4: 02:00 PM – 03:00 PM Session 5: 03:00 PM – 04:00 PM
Target Group	:	Technical Staff (Level-1)
No. Of Participants	:	20
Total Hour	:	20*5*8 = 800 Hour
Course Objectives	:	This training is designed to help technical staffs understand the basics of combined cycle power plant.
Evaluation Method	:	Pre-Test and post-test (Online MCQ), Written Evaluation (Offline)

Course Outline

Day-1 Plant Operation Module

Session 1: Introduction to Combined Cycle Power Plant

- Basic overview of CCGT process and major systems
- Introduction to GT, HRSG, ST and auxiliary systems
- Role of Technical Staff in operation support activities

Session 2: Operating Philosophy and Safe Work Practices

- Principles of safe and reliable plant operation
- Basic operating discipline and interdepartmental coordination
- Importance of following operating instructions and proper reporting

Session 3: Plant Systems and Field Equipment Familiarization

- Introduction to major plant systems and associated equipment
- Identification of common field equipment used in operation
- Basic awareness of normal and abnormal operating conditions

Session 4: Operating Parameter Monitoring and Inspection Log Sheet Practices

- Monitoring of pressure, temperature, flow and level parameters

- Basic awareness of normal operating range and abnormal trend indication
- Log sheet recording and shift communication practices

Session 5: Operational Safety, Permit Awareness and Housekeeping

- Safety precautions during operation-related activities
- Basic permit, isolation and safe access awareness
- Housekeeping and operational discipline in plant areas

Day-2

Session 6: Start-up and Shutdown Support Awareness

- Basic of start-up and shutdown activities
- Equipment preparation and restoration awareness
- Importance of sequence, communication and coordination

Session 7: Valve Line-up, Field Verification and Equipment Readiness

- Basic valve line-up and equipment readiness checking
- Field verification before equipment start-up or return to service
- Operation support practices for safe plant running

Session 8: Abnormal Condition Recognition and Operational Response

- Recognition of leakage, vibration, noise, overheating, alarms and trips
- Basic response and reporting procedure during abnormal conditions
- Importance of timely communication with control room and supervisors

Session 9–10: Practical Session – Plant Operation Field Familiarization and Support Activities (2 Hours)

- Field familiarization of major plant systems and operating equipment
- Identification of valves, pumps, gauges and local panels
- Demonstration of line-up checking and equipment status verification
- Safe field movement, communication practices and operation support activities

Day-3

Operational approach of Mechanical system

Session 11: Mechanical Systems and Their Role in Plant Operation

- Overview of pumps, valves, fans and piping systems
- Role of mechanical systems in supporting plant operation
- Importance of equipment condition monitoring

Session 12: Valve Operation, Line-up and Mechanical Isolation Awareness

- Basic operation of manual valves and line-up checking
- Importance of correct isolation and positioning
- Mechanical support activities related to plant operation

Session 13: Pumps, Fans and Auxiliary Equipment Operation Support

- Basic checking of pumps, fans and auxiliary mechanical equipment
- Identification of leakage, vibration and abnormal noise
- Awareness of abnormal operating conditions

Session 14: Mechanical Safety and Good Field Practices

- Safety precautions during mechanical operation support work

- Awareness of rotating parts, hot surfaces and pressurized systems
- Good field practices and housekeeping requirements

Session 15: Mechanical Equipment Condition Monitoring During Operation

- Observation of leakage, vibration, temperature and noise
- Basic condition monitoring during plant operation
- Reporting of mechanical abnormalities to concerned personnel

Day-4

Operational view of Electrical system

Session 16: Electrical Systems and Their Role in Plant Operation

- Overview of transformers, switchgear, MCCs and auxiliary electrical systems
- Role of electrical systems in supporting reliable plant operation
- Importance of equipment availability and operational readiness

Session 17: Breaker Operation, Isolation and Electrical Safety Awareness

- Basic awareness of breaker operation and isolation confirmation
- Electrical safety precautions during operation-related activities
- Safe practices in field-level electrical support work

Session 18: Field Inspection of Electrical Equipment During Operation

- Checking of breakers, panels, indications and local status
- Identification of overheating, trip status and abnormal signs
- Reporting of abnormal electrical conditions

Session 19: Electrical Protection, Indication and Operational Readiness

- Basic awareness of protection devices and status indications
- Equipment readiness verification before operation
- Importance of prompt communication and reporting

Operational view of I&C system

Session 20: Orientation of Instrumentation and Control in Plant Operation

- Role of I&C systems in plant monitoring and control
- Introduction to instruments, transmitters and control devices
- Importance of accurate indication in plant operation

Day-5

Session 21: Instrument Indication, Control Loop and Field Signal Awareness

- Basic awareness of process indication and signal transmission
- Introduction to pressure, temperature, flow and level instruments
- Reporting of indication abnormality and field observations

Session 22: Control Valves, Actuators, Alarms and Interlock Awareness

- Basic role of control valves, actuators, alarms and interlocks
- Importance of I&C support in reliable plant operation
- Awareness of safe authorization and operating discipline

Integrated Practical Session**Session 23–24: Combined Practical Session – Mechanical, Electrical and I&C Operation Support Activities (2 Hours)**

- Demonstration of Mechanical, Electrical and I&C related field activities
- Observation of equipment condition, indication and operational status
- Identification of common abnormal conditions and reporting practices

Assessment and Closing**Session 25: Final Assessment, Certificate Distribution and Closing Ceremony**

- Final evaluation of participant understanding
- Certificate distribution to successful participants
- Formal closing of the training program

7. Fundamentals of Combined Cycle Power Plant Maintenance

Course Code	:	IH-CB-0066
Course Name	:	Fundamentals of Combined Cycle Power Plant Maintenance
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:40 AM – 11:40 AM Session 3: 11:50 PM – 12:50 PM Session 4: 02:00 PM – 03:00 PM Session 5: 03:00 PM – 04:00 PM
Target Group	:	Technical Staff (Level-1)
No. Of Participants	:	20
Total Hour	:	20*3*8 = 480 Hour
Course Objectives	:	This training is designed to help staffs of NWPGCL understand the maintenance system of a combined cycle power plant.
Evaluation Method	:	Pre-Test and post-test (Online MCQ), Written Evaluation (Offline)

Course Outline:

Day-1 Mechanical Maintenance Module

Session 1: Introduction to Mechanical Maintenance in CCPP

- Basic overview of mechanical equipment used in CCPP
- Introduction to pumps, valves, fans, piping and auxiliaries

- Role of Technical Staff in mechanical maintenance support

Session 2: Maintenance of Valves, Flanges and Pipe Fittings

- Basic maintenance practices for valves, flanges and fittings
- Observation of leakage, looseness and gasket condition
- Importance of correct tightening and isolation awareness

Session 3: Maintenance Support for Pumps, Fans and Rotating Equipment

- Basic checking of pumps, fans and rotating equipment
- Observation of leakage, vibration, noise and overheating
- Awareness of abnormal mechanical condition during maintenance

Session 4: Mechanical Safety and Maintenance Good Practices

- Safety precautions during mechanical maintenance work
- Awareness of rotating parts, hot surfaces and pressurized systems
- Good field practices, housekeeping and tool handling

Session 5: Basic Inspection and Condition Monitoring of Mechanical Equipment

- Basic inspection before and after maintenance work
- Observation of vibration, temperature, leakage and abnormal sound
- Reporting of defects and abnormalities to concerned personnel

Day-2 Electrical Maintenance Module

Session 6: Introduction to Electrical Maintenance in CCPP

- Basic overview of plant electrical systems and equipment
- Introduction to transformers, switchgear, MCCs and breakers
- Role of Technical Staff in electrical maintenance support

Session 7: Breaker Isolation, Electrical Safety and Permit Awareness

- Basic awareness of breaker isolation and electrical safety
- Safe practices during electrical maintenance activities
- Importance of isolation confirmation and permit compliance

Session 8: Basic Maintenance Checking of Electrical Equipment

- Checking of breakers, panels, MCCs and local indications
- Observation of overheating, loose connection and abnormal smell
- Reporting of abnormal electrical condition

Session 9: Electrical Protection, Testing Awareness and Maintenance Good Practices

- Basic awareness of protection devices and equipment status
- Introduction to simple testing awareness during maintenance
- Importance of safe handling, reporting and maintenance discipline

Instrumentation & Control Maintenance Module

Session 10: Introduction to Instrumentation & Control Maintenance

- Basic overview of I&C systems in CCPP
- Introduction to instruments, transmitters, control valves and panels
- Role of Technical Staff in I&C maintenance support

Day-3

Session 11: Instrument Checking, Signal Awareness and Field Observation

- Basic awareness of pressure, temperature, flow and level instruments
- Observation of indication abnormality and signal-related issues
- Reporting of instrument defects and field observations
-

Session 12: Control Valves, Actuators, Alarms and Interlock Awareness

- Basic role of control valves, actuators, alarms and interlocks
- Awareness of common maintenance-related abnormalities
- Importance of proper authorization and safe work practices

Integrated Practical Learning Module

Session 13–14: Combined Practical Session – Mechanical, Electrical and I&C Maintenance Activities (2 Hours)

- Demonstration of basic Mechanical, Electrical and I&C maintenance activities
- Field observation of equipment condition, defects and maintenance checkpoints
- Identification of common abnormalities and reporting practices

Assessment and Closing Session

Session 15: Final Assessment, Certificate Distribution and Closing Ceremony

- Final evaluation of participant understanding
- Certificate distribution to successful participants
- Formal closing of the training program

8. Office Management

Course Code	:	IH-CB-0070
Course Name	:	Office Management
Duration	:	05 Days
Number of Sessions	:	25
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:40 AM – 11:40 AM Session 3: 11:50 PM – 12:50 PM Session 4: 02:00 PM – 03:00 PM Session 5: 03:00 PM – 04:00 PM
Target Group	:	Office Assistant, JAM, SAE
No. Of Participants	:	20

Total Hour	:	20*5*8 = 800 Hour
Course Objectives	:	This training is designed to meet the real development need of staffs and junior assistant managers, and sub-assistant engineers who have to perform regular computerized tasks. In this training, trainee will learn to use basic software, hardware, D-Nothi, ERP, essential part of Microsoft Office, oral & written communication at office, etc. which will enable the trainee to work faster with confidence.
Evaluation Method	:	Pre-Test and post-test (Online MCQ), Written Evaluation (Offline)
Course Outline:		
Day 1		
Session 01	Troubleshooting basics software	
Session 02	Hard ware basics software	
Session 03	D-Nothi: ডাক ব্যবস্থাপনা	
Session 04	D-Nothi: নথি ব্যবস্থাপনা	
Session 05	D-Nothi: পত্র খসড়া ও অন্যান্য	
Day 2		
Session 06	D-Nothi: পত্র খসড়া ও অন্যান্য	
Session 07	ERP HR Module	
Session 08	ERP Account Report Management (Admin & Account Module)	
Session 09	Official Use of Microsoft outlook	
Session 10	Gmail Features & Email writing	
Day 3		
Session 11	Use of what's app, Google meet, Zoom & Microsoft team for office Purpose	
Session 12	Basic software's for office optimization	
Session 13	Microsoft word Advanced: session	
Session 14	Microsoft Excel Basics: Session-01	
Session 15	Microsoft Excel Advanced Part-01	
Day 4		
Session 16	Microsoft Excel Advanced Part-02	
Session 17	Microsoft Power Point Part-01	
Session 18	Microsoft Power Point Part-02	
Session 19	Google form: Advanced	
Session 20	Use of AI in Office	
Day 5		
Session 21	Office Procedure & Record Management	
Session 22	Oral communication, Leadership & Team Building in an Organization	
Session 23	Written Communication	

Session 24	Desk Management
Session 25	Etiquette, Manner & Discipline

9. কেপিআই নিরাপত্তা ব্যবস্থাপনা

Course Code	:	IH-CB-0069
Course Name	:	কেপিআই নিরাপত্তা ব্যবস্থাপনা
Duration	:	03 Days
Number of Sessions	:	20
Session Plan	:	Session 1: 9:30 AM – 10:30 AM Session 2: 10:40 AM – 11:40 AM Session 3: 11:50 PM – 12:50 PM Session 4: 02:00 PM – 03:00 PM Session 5: 03:00 PM – 04:00 PM
Target Group	:	Security Staffs
No. Of Participants	:	20
Total Hour	:	20*3*8 = 480 Hour
Course Objectives	:	This training is designed to develop the understanding of KPI security rules and practical application for the security staffs of NWPGL.
Evaluation Method	:	Pre-Test and post-test (Online MCQ), Written Evaluation (Offline)
Course Outline:		
সেশন	প্রশিক্ষণের বিষয়	পাঠদান পদ্ধতি
Day 1		
Session 1	ইন্টেলিজেন্স, পর্যবেক্ষণ ও স্মরণশক্তি	ব্রিফিং
Session 2	প্রবেশ নিয়ন্ত্রণ ও ভৌত নিরাপত্তা	লেকচার
Session 3 & 4	কেপিআই নিরাপত্তা নিতিমালা-২০১৩ ইং	লেকচার
Session 5	গুজব ও প্রোপাগান্ডা, ভেরিফিকেশন ও ডেটিং	লেকচার
Day 2		
Session 1	গুপ্তচরবৃত্তি, নাশকতা ও অভ্যর্থনা	লেকচার
Session 2	অফিসিয়াল সিক্রেটস অ্যাক্ট-১৯২৩	লেকচার
Session 3 & 4	সিকিউরিটি ম্যানুয়াল, ভেড়া মারা ৪১০ মেঃ ওঃ কন্সাইন্ড সাইকেল বিদ্যুৎ কেন্দ্র	লেকচার
Session 5	দলিল দস্তাবেজের নিরাপত্তা, মূলনীতি, শ্রেণীবিন্যাস, হিসাব ও বিতরণ	লেকচার
Day 3		

Session 1	দলিল দস্তাবেজের ব্যবহার, প্রেরণ পদ্ধতি, সংরক্ষণের কন্টেন্ট ইনার এবং তালা-চাবির নিরাপত্তা	লেকচার
Session 2	অগ্নি নিরাপত্তা	লেকচার
Session 3	সু-শাসন, সুশাসন-এর ধারণা, সুশাসনের মূলনীতি, জবাবদিহিতা নিশ্চিতকরণে সুশাসনের ভূমিকা, সুশাসন, সততা ও নৈতিকতার সাথে দুর্নীতি প্রতিরোধের সম্পর্ক	লেকচার
Session 4	প্রতিষ্ঠানে নেতৃত্ব এবং দল গঠন 1. নেতৃত্বের ধারণা 2. কার্যকর দল গঠন এবং দল গঠনের ধারণাসমূহ 3. যোগাযোগ, প্রেষণা এবং দ্বন্দ্ব ব্যবস্থাপনা 4. নৈতিকতা, মূল্যবোধ এবং দায়বদ্ধতা	লেকচার
Session 5	দুর্নীতি, প্রতিষ্ঠানের দুর্নীতির ধরণ এবং দুর্নীতি প্রতিরোধের উপায়	বিবিধ

COURSE CONTENTS OF MADHUMOTI 100 MW HFO PP

1. Advanced Mechanical Maintenance of Engine

Course Code	:	IH-CB-0071
Course Name	:	Advanced Mechanical Maintenance of Engine
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:15 AM – 10:15 AM Session 2: 10:40 AM – 11:40 AM Session 3: 11:50 PM – 12:50 PM Session 4: 02:10 PM – 03:10 PM Session 5: 03:20 PM – 04:20 PM
Target Group	:	Technical Staff / SAE / AE / SDE / XEN
No. Of Participants	:	20
Course Objectives	:	This training emphasizes mechanical maintenance by covering auxiliary systems, engine overhauling, and vibration control to strengthen practical inspection and servicing skills. It also develops competency in coupling alignment and troubleshooting, enabling participants to diagnose faults, prevent failures, and maintain reliable engine performance.
Evaluation Method	:	Pre-Test and post-test + Daily Practical Observation

Course Outline:

Day 1: Engine Preventive Maintenance, Alignment, Vibration Control and Gear Mechanism

Session 1: Preventive Maintenance

- Maintenance schedule
- Maintenance procedure
- Component condition evaluation
- Troubleshooting

Session 2: Engine Crankshaft Alignment

- Crankshaft
- Importance of checking crankshaft alignment
- Crankshaft alignment checking procedure
- Allowable crankshaft deflections

Session 3: Engine Flexible Coupling Alignment

- Engine–alternator alignment basics
- Soft foot correction
- Coupling types & inspection
- Dial/laser alignment overview

Session 4: Engine Vibration control & Monitoring

- Understanding Engine Vibration
- Common causes of engine vibration
- Effects of excessive vibration
- Assessed engine vibration
- Control and prevention

Session 5: Engine Gear Mechanism

- Different gear system
- Intermediate Gear
- Inspection of intermediate gear
- Measurement of intermediate gear

Day 2: Engine Major Overhauling (12000 Hour)**Session 6: Engine Overhauling Fundamentals**

- Understanding the basics of engine overhaul before overhaul
- Maintenance Tools
- Safety instructions & Use of hydraulic cylinder extractor

Session 7: Engine Major Overhauling Tasks

- Overhaul of cylinder head
- Inspection and honing of cylinder liner.
- Inspection of piston and piston rings.

Session 8: Engine Major Overhauling Tasks

- Inspection of big-end-bearing
- Inspection of small-end-bearing
- Inspection of camshaft & Timing gears

Session 9: Overhaul of Fuel Injection Pump

- Injection pump function
- Removal and dismantling of injection pump
- Inspection of injection pump parts

Session 10: Overhaul of Fuel Injection Pump

- Assembling and mounting of injection pump
- Checking the fuel injection timing
- Adjusting the fuel injection timing

Day 3: Troubleshooting of Engine**Session 11: Engine Start and Load related Troubleshooting**

- Engine does not react to start request
- Crankshaft does not rotate at start attempt
- Engine load or speed unstable
- Engine loses speed or load

Session 11: Exhaust Gas Temperature Related Troubleshooting

- Exhaust gas temperature in one cylinder high
- Exhaust gas temperature in one cylinder low
- Exhaust gas temperature at TC inlet is high

Session 12: Lubricating Oil Related Troubleshooting

- Lubricating oil consumption high
- Lubrication oil pressure high
- Lubrication oil pressure low
- Lubrication oil temperature high
- Water in lubricating oil

Session 14: Other Important Troubleshooting

- Crankcase pressure high
- Cooling water consumption high
- Cooling water pressure low or fluctuating

- Main or big end bearing temperature high
- Cylinder liner temperature high

Session 15: Real Case Study & Question

- Latest real case study
- Question

2. Advanced Electrical Trouble Shooting & Maintenance

Course Code	:	IH-CB-0072
Course Name	:	Advanced Electrical Trouble Shooting & Maintenance
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:15 AM – 10:15 AM Session 2: 10:40 AM – 11:40 AM Session 3: 11:50 PM – 12:50 PM Session 4: 02:10 PM – 02:10 PM Session 5: 03:20 PM – 04:20 PM
Target Group	:	Technical Staff / SAE / AE / SDE / XEN
No. Of Participants	:	20
Course Objectives	:	This training focuses on electrical and instrumentation maintenance, covering transformers, engine auxiliary systems, gas turbine electrical components, and plant automation. It also builds practical skills in sensor technology, system operation, protection systems, backup procedures, and testing techniques to ensure safe, reliable, and efficient plant performance.
Evaluation Method	:	Pre-Test and post-test + Daily Practical Observation

Course Outline:

Day 1: Maintenance of Transformer, Instrumentation & Operational Control Principles

Session 1: Maintenance of Transformer

- Transformer Operation & Condition Monitoring
- Preventive & Routine Maintenance Procedures
- Testing, Protection & Fault Diagnosis
-

Session 2: Instrument Coding

- Instrumentation Identification & Tagging Standards
- Coding Systems and Documentation Practices
- Instrument Loop Identification and System Integration

Session 3: Sensor Systems & Operational Control Principles

- Sensor Technology
- ESM-20/21

Session 4: Sensor Systems & Operational Control Principles

Mode of operation

- Fault Troubleshooting of Generator Protection System

- Engine Safety System
- Unic and AVR (VAMP-265, VAMP-210, Unitrol 1020)

Session 5: Electrical Fault Troubleshooting Using Drawing and Manual Wartsila V50 Engine

Day 2: Automation & Control Systems

Session 6 & 7: Generator Start-up Control & Protection Systems

- Soft start functionality
- Generator Protection

Session 8, 9 & 10: Plant Automation Systems & Control Interface Operation

- WOIS and WISE operation
- Plant Automation Layout
- Automation System Fault Troubleshooting Procedure
- Data Transfer System Wartsila V50 Engine
- Root Cause Analysis

Day 3: Protection Systems & Testing Procedures

Session 11: Protection Relay

- VAMP relay backup and restore procedure

Session 12: AVR Backup and Restore Procedures

- AVR Unitrol 1020 backup and restore procedure

Session 13 & 14: Testing & Procedure

- ESM Testing Procedure

Session 15: Testing & Procedure

- Big End Bearing Calibration Procedure

3. Public Procurement Rules (2025)

Course Code	:	IH-CB-0029
Course Name	:	Public Procurement Rule (PPR-2025)
Duration	:	03 Days
Number of Sessions	:	15
Session Plan	:	Session 1: 9:15 AM – 10:15 AM Session 2: 10:40 AM – 11:40 AM Session 3: 11:50 PM – 12:50 PM Session 4: 02:10 PM – 03:10 PM Session 5: 03:20 PM – 04:20 PM
Target Group	:	SAE / AE / SDE / XEN
No. Of Participants	:	20
Course Objectives	:	To get familiarize with PPR-2025 & its Implantation in Official activities
Evaluation Method	:	Pre-Test and post-test + Daily Practical Observation

Course Outline:

Day-1: Procurement Plan, Committee, Method

Session 1&2: Procurement Plan

- Identifying procurement needs, budgeting and cost estimation, supplier selection criteria, procurement methods and procedures, timeline and scheduling, approval processes, risk assessment, and contract management.
-

Session 3: Formation of Committee

- The purpose and scope of the committee, selecting qualified members, determining roles and responsibilities, setting terms of reference (ToR), establishing rules of procedure, ensuring representation and transparency, approval and formalization process, and maintaining records of meetings and decisions
-

Session 4 & 5: Procurement Method (Strategy to select)

- Identifying procurement objectives, selecting between open tendering and limited tendering, request for quotation (RFQ), direct procurement, framework agreements, evaluating supplier capabilities, cost-effectiveness analysis, compliance with procurement policies, and choosing methods

Day-2: Procurement of goods and services

Session 5 & 6: Procurement of goods and its related Standard Procurement Documents

- Identifying needs and specifications, preparing procurement plans, selecting appropriate procurement methods, inviting and evaluating bids or quotations, supplier selection, contract award and management, delivery inspection, quality assurance, and compliance with procurement rules and regulations and list of Standard Procurement Documents.

Session 7 & 8: Procurement of goods and its related Standard Procurement Documents

- Identifying needs and specifications, preparing procurement plans, selecting appropriate procurement methods, inviting and evaluating bids or quotations, supplier selection, contract award and management, delivery inspection, quality assurance, and compliance with procurement rules and regulations and list of Standard Procurement Documents.

Session 9 & 10: Procurement of Service and its related Standard Procurement Document

- The scope of services, preparing terms of reference (ToR), selecting the appropriate procurement method, shortlisting and evaluating service providers, assessing technical and financial proposals, contract negotiation and award, performance monitoring, and ensuring compliance with service agreements and procurement regulations and list of Standard Procurement Documents

Day-3: Procurement of works, DoFP & Tender Evaluation**Session 11 & 12: Procurement of works and its related Standard Procurement Document**

- Identifying needs and specifications, preparing procurement plans, selecting appropriate procurement methods, inviting and evaluating bids or quotations, supplier selection, contract award and management, delivery inspection, quality assurance, and compliance with procurement rules and regulations and list of Standard Procurement Documents.

Session 13 & 14: Delegation of Financial Power

- Short Title and Commencement, Definitions Some Context Related to PPR – 2008, Preparation of Tender or Proposal, Committee, Etc., Procurement Method, delegation of Financial Power- 2012 (Revenue), Short Titles and Comments, Annual Procurement Plan, General Instruction to Delegation of Financial Power.

Session 15: Tender Evaluation and contract Award

- Formation of the evaluation committee, evaluation criteria and methodology, technical and financial bid assessment, compliance with tender requirements, preparation of evaluation reports, seeking necessary approvals, notification of award, contract negotiation (if needed), and formal signing of the contract following procurement rules.

4. প্রাতিষ্ঠানিক আচরণ, ছুটি ও সুবিধাদি ব্যবস্থাপনা, শৃঙ্খলা এবং প্রশাসনিক ব্যবস্থা

কোর্স কোড	:	IH-CB-0019
কোর্সের নাম	:	প্রাতিষ্ঠানিক আচরণ, ছুটি ও সুবিধাদি ব্যবস্থাপনা, শৃঙ্খলা এবং প্রশাসনিক ব্যবস্থা
কোর্সের মেয়াদ	:	০৩ দিন।
সেশন	:	১৫ টি।
সেশন প্ল্যান	:	১ম সেশন=৯.১৫-১০.১৫ ঘটিকা; ২য় সেশন= ১০.৪০-১১.৪০ ঘটিকা; ৩য় সেশন=১১.৫০-১২.৫০ ঘটিকা; ৪র্থ সেশন ২.১০-৩.১০ ঘটিকা; ৫ম সেশন ৩.২০-৪.২০ ঘটিকা;
টার্গেট গ্রুপ	:	কর্মকর্তা/কর্মচারী।
অংশগ্রহণকারীর সংখ্যা	:	২৫ জন।
কোর্সের উদ্দেশ্য	:	অংশগ্রহণকারীদের কর্মক্ষেত্রে পেশাদারিত্ব, নৈতিক আচরণ, দলগত কাজ, নিরাপত্তা সচেতনতা, এবং প্রাতিষ্ঠানিক মূল্যবোধ সম্পর্কে বিস্তারিত ধারণা প্রদান ও ব্যক্তিগত উন্নয়ন।
মূল্যায়ন প্রক্রিয়া	:	প্রি-টেস্ট ও পোস্ট-টেস্ট
কোর্স আউটলাইন :		

প্রথম দিন

সেশন ১: শিষ্টাচার, আদব-কায়দা ও কর্মক্ষেত্রের আচরণ

- নম্রতা, কথার সুর ও বৈঠকের সময় নীরব থাকার নিয়ম
- উর্ধ্বতন কর্তৃপক্ষের প্রতি শ্রদ্ধাশীল মনোভাব
- কর্মক্ষেত্রে পেশাদার আচরণের প্রয়োজনীয়তা

সেশন ২: কোম্পানির ভিশন অর্জনে প্রতিটি কর্মীর ভূমিকা

- প্রতিটি কাজের উদ্দেশ্য ও তার গুরুত্ব
- পরিষ্কার-পরিচ্ছন্নতা, ড্রাইভিং, রান্না ইত্যাদির মাধ্যমে প্রতিষ্ঠানের লক্ষ্যে অবদান
- ব্যক্তিগত ভূমিকা ও প্রতিষ্ঠানের সাফল্যের সম্পর্ক

সেশন ৩: ইউনিফর্ম, সাজসজ্জা এবং উপস্থিতি

- পরিষ্কার পোশাক ও সময় মতো কর্মস্থলে উপস্থিতির গুরুত্ব
- ব্যক্তিগত পরিচ্ছন্নতা ও স্বাস্থ্যবিধি
- পরিচয়পত্র দৃশ্যমানভাবে পরিধানের নিয়মাবলী

সেশন ০৪: পরিচ্ছন্ন কর্মক্ষেত্র

- কর্মক্ষেত্রে পরিষ্কার-পরিচ্ছন্নতার গুরুত্ব
- বর্জ্য পৃথকীকরণ ও পরিবেশবান্ধব নিষ্পত্তি
- বিদ্যুৎ ও পানির সাশ্রয়ী ব্যবহার

সেশন ০৫: চাকরির সুবিধাদি

- আর্থিক সুবিধাদি (বোনাস, ভাতা, পেনশন)
- অআর্থিক সুবিধাদি (স্বাস্থ্যসেবা, প্রশিক্ষণ, কর্মপরিবেশ)
- সুবিধাদি পাওয়ার শর্তাবলী

দ্বিতীয় দিন

সেশন ০৬: ছুটির ধরণ ও প্রক্রিয়া

- বিভিন্ন ধরণের ছুটি (বার্ষিক, রোগী, জরুরি)
- ছুটির আবেদন, অনুমোদন ও প্রত্যাখ্যানের নিয়মাবলী
- ছুটির পরিকল্পনা ও ব্যবস্থাপনা

সেশন ০৭: আচরণবিধি ও শৃঙ্খলাবিধি

- NWPGL-এর আচরণবিধির মূল পয়েন্টসমূহ
- শৃঙ্খলা ভঙ্গের ধরন ও ফলাফল
- শৃঙ্খলা রক্ষার গুরুত্ব

সেশন ০৮: শাস্তিমূলক ব্যবস্থা

- শাস্তির বিভিন্ন ধরণ (মৌখিক, লিখিত সতর্কতা, বরখাস্ত)
- শাস্তির ক্ষেত্রে ন্যায্যবিচারের প্রক্রিয়া
- আপিল ও পুনর্বিবেচনার নিয়মাবলী

সেশন ০৯: কর্মক্ষেত্রে আইনি সচেতনতা ও শ্রম আইন পরিচিতি

- শ্রম আইন ও কর্মচারীর অধিকার সম্পর্কিত ধারণা
- কর্মক্ষেত্রে আইনগত বাধ্যবাধকতা ও দায়িত্ব
- আইনগত সমস্যায় সমাধানের পথ ও কৌশল

সেশন ১০: অগ্নি নিরাপত্তা ও জরুরি বহির্গমন সচেতনতা

- অগ্নিকাণ্ডের কারণ ও প্রতিরোধ
- অগ্নি নির্বাপক যন্ত্রের ব্যবহার
- জরুরি বহির্গমনের নিয়মাবলী ও নিরাপদ চলাচল

তৃতীয় দিন

সেশন ১১: টাইম ম্যানেজমেন্ট

- দৈনন্দিন কাজের পরিকল্পনা ও অগ্রাধিকার নির্ধারণ
- কার্যকর শিডিউল তৈরি এবং সময়সীমা পরিচালনা
- সময় অপচয় কমানো, প্রোডাক্টিভিটি বৃদ্ধি এবং শটকাট ও প্রোডাক্টিভিটি টুল ব্যবহার করে কার্যক্রম দক্ষভাবে সম্পন্ন করা

সেশন ১২: ব্যক্তিগত আর্থিক ব্যবস্থাপনা

- মাসিক আয় ও ব্যয়ের পরিকল্পনা ও হিসাব রাখা
- সঞ্চয় এবং বাজেট তৈরির কৌশল
- ঋণ ব্যবস্থাপনা ও সুদের হিসাব
- আর্থিক লক্ষ্য নির্ধারণ এবং অর্থনৈতিক সিদ্ধান্ত গ্রহণে প্রোডাক্টিভিটি টুল ব্যবহার

সেশন ১৩: সামাজিক যোগাযোগ মাধ্যম ব্যবহার

- সামাজিক যোগাযোগ মাধ্যমের নিরাপদ ও কার্যকর ব্যবহার
- অফিসিয়াল ও ব্যক্তিগত প্রোফাইল ব্যবস্থাপনা
- পেশাগত ও ব্যক্তিগত যোগাযোগে সোশ্যাল মিডিয়ার প্রভাব
- তথ্য শেয়ারিং এবং গোপনীয়তা সংরক্ষণ ও অনলাইন এডিকেটেড আচরণ

সেশন ১৪: জেভার সচেতনতা, ধর্মীয় ও সাংস্কৃতিক সংবেদনশীলতা সকল বিশ্বাসের প্রতি শ্রদ্ধাশীল হওয়ার গুরুত্ব

- জবরদস্তি থেকে বিরত থাকার নৈতিক দায়িত্ব
- ধর্মীয় ও সাংস্কৃতিক সংবেদনশীলতার গুরুত্ব

সেশন ১৫: দলবদ্ধ কাজ ও "আমরা, আমি নই" সংস্কৃতি

- প্রতিযোগিতার পরিবর্তে সমন্বয়ের গুরুত্ব
- পারস্পরিক শ্রদ্ধা ও ঐক্যের ভূমিকা
- কার্যকর দলগত কাজের কৌশল ও অভ্যাস

5. উন্নত নিরাপত্তা এবং ফায়ার সেফটি

কোর্স কোড	:	IH-CB-0048
কোর্সের নাম	:	উন্নত নিরাপত্তা এবং ফায়ার সেফটি
কোর্সের মেয়াদ	:	০৩ দিন।
সেশন	:	১৫ টি।
সেশন প্ল্যান	:	১ম সেশন=৯.১৫-১০.১৫

		২য় সেশন= ১০.৪০-১১.৪০ ৩য় সেশন=১১.৫০-১২.৫০ ৪র্থ সেশন ১.১০-৩.১০ ৫ম সেশন ৩.২০-৪.২০
টাগেট গ্রুপ	:	সিকিউরিটি সুপারভাইজার এবং সিকিউরিটি গার্ড।
অংশগ্রহণকারীর সংখ্যা	:	২০ জন।
কোর্সের উদ্দেশ্য	:	নিরাপত্তা জ্ঞান, শারীরিক নিরাপত্তা ব্যবস্থাপনা, ডিজিটাল নিরাপত্তা সরঞ্জামের ব্যবহার, সিদ্ধান্ত গ্রহণের ক্ষমতা, পেশাগত আচরণবিধি সম্পর্কে বিস্তারিত ধারণা প্রদান ও দক্ষতা বৃদ্ধি, অগ্নি ঝুঁকি, ফায়ার সেফটি সিস্টেম, জরুরি পরিস্থিতিতে করণীয়, উদ্ধার কৌশল ও বাস্তব অনুশীলনের মাধ্যমে কার্যকর দক্ষতা গড়ে তোলা।
মূল্যায়ন প্রক্রিয়া	:	প্রি-টেস্ট ও পোস্ট-টেস্ট
কোর্স আউটলাইন :		
প্রথম দিন: নিরাপত্তা ব্যবস্থাপনা ও মৌলিক ধারণা		
সেশন ১: নিরাপত্তা ব্যবস্থাপনা সিস্টেম (SMS) পরিচিতি এবং মৌলিক বিষয়সমূহ		
- নিরাপত্তা ব্যবস্থাপনা সিস্টেমের সংজ্ঞা ও গুরুত্ব। - একটি কার্যকর SMS এর উপাদানসমূহ। - নিরাপত্তা নীতি ও পদ্ধতির প্রয়োগ। - নিরাপত্তার প্রকারভেদ (শারীরিক, তথ্য, কর্মী)। - ঝুঁকি বিশ্লেষণ ও মূল্যায়ন। - নিরাপত্তা ব্যবস্থার লক্ষ্য ও উদ্দেশ্য।		
সেশন ২: একজন নিরাপত্তা কর্মীর অপরিহার্য গুণাবলী ও মৌলিক নিরাপত্তা সিদ্ধান্ত গ্রহণ		
- দায়িত্বশীলতা ও সততা। - সতর্কতা ও পর্যবেক্ষণ ক্ষমতা। - শারীরিক ও মানসিক সুস্থতা। - যোগাযোগ দক্ষতা ও ধৈর্য। - জরুরি পরিস্থিতিতে দ্রুত সিদ্ধান্ত গ্রহণের কৌশল। - ঝুঁকি মূল্যায়ন করে সঠিক পদক্ষেপ গ্রহণ। - উর্ধ্বতন কর্তৃপক্ষকে সময় মতো অবহিতকরণ।		
সেশন ৩: শারীরিক নিরাপত্তা: রক্ষণাবেক্ষণ ও পর্যবেক্ষণ		
- নিরাপত্তা বেট্টনী ও অবকাঠামো রক্ষণাবেক্ষণ। - পর্যবেক্ষণ কৌশল ও সন্দেহজনক কার্যকলাপ চিহ্নিতকরণ। - নিয়মিত টহল ও নিরাপত্তা নিরীক্ষা।		
সেশন ৪: প্রবেশাধিকার নিয়ন্ত্রণ ও গেট পাস সিস্টেম		
- প্রবেশাধিকার নিয়ন্ত্রণের নীতি ও পদ্ধতি। - বিভিন্ন প্রকার গেট পাস সিস্টেম। - ভিজিটর ও যানবাহনের প্রবেশ নিয়ন্ত্রণ।		
সেশন ৫: ডিজিটাল নিরাপত্তা সরঞ্জামের ব্যবহার		
হ্যান্ড মেটাল ডিটেক্টর ব্যবহারের সঠিক পদ্ধতি।		

- ভেহিকেল সার্চ মিরর দিয়ে যানবাহন তল্লাশি।
- ব্যবহারিক প্রশিক্ষণ ও সতর্কতা।
- আর্চ ওয়ে (Door Frame Metal Detector) ব্যবহারের নিয়মাবলী।
- সিসিটিভি মনিটরিং ও ফুটেজ বিশ্লেষণ।

দ্বিতীয় দিন: প্ল্যান্টে প্রবেশ পদ্ধতি ও অগ্নিকাণ্ড ও অগ্নি নির্বাপন ব্যবস্থা সংক্রান্ত মৌলিক ধারণা

সেশন ৬: NWPGL এর কর্মচারী সেবা বিধিমালা

- কর্মচারী বিধিমালা সম্পর্কে বিস্তারিত ধারণা।
- শৃঙ্খলা ও আচরণ সংক্রান্ত নিয়মাবলী।
- সেবা সম্পর্কিত অধিকার ও কর্তব্য।

সেশন ৭: প্রবেশ পদ্ধতি: ভিজিটর, পণ্য, উপকরণ, সরবরাহকারী এবং অভ্যন্তরীণ

- বিভিন্ন প্রকার প্রবেশকারীদের জন্য নির্ধারিত পদ্ধতি।
- পণ্য ও উপকরণ আনা-নেওয়ার নিয়মাবলী।
- সরবরাহকারী ও অভ্যন্তরীণ কর্মীদের প্রবেশ নিয়ন্ত্রণ।

সেশন ৮: পাওয়ার প্ল্যান্টে অগ্নিকাণ্ডের ঝুঁকি

- বৈদ্যুতিক শর্ট সার্কিট থেকে আগুন
- ট্রান্সফরমার বিস্ফোরণ ও তেল থেকে আগুন
- জেনারেটর অতিরিক্ত গরম হওয়া
- জ্বালানি (ডিজেল/গ্যাস) লিকেজ
- কেমিক্যাল ও কুলিং সিস্টেমের ঝুঁকি

সেশন ৯: আগুনের ধরন

- বৈদ্যুতিক আগুন
- তেল বা জ্বালানি আগুন
- কেমিক্যাল আগুন
- বিশেষ কিছু ক্ষেত্রে ধাতব আগুন

সেশন ১০: ফায়ার সেফটি সিস্টেম

- ফায়ার অ্যালার্ম সিস্টেম (ধোঁয়া ও তাপ শনাক্তকারী)
- CO₂ ফায়ার সাপ্রেসন সিস্টেম (কন্ট্রোল রুম/জেনারেটর রুমে)
- স্প্রিংকলার সিস্টেম
- ফায়ার হাইড্র্যান্ট সিস্টেম
- জরুরি শাটডাউন সিস্টেম

তৃতীয় দিন: ফায়ার সেফটি সিস্টেমের ব্যবহার ও ইমার্জেন্সি রেসপন্স

সেশন ১১: ফায়ার এক্সটিংগুইশার ব্যবহার

- CO₂ এক্সটিংগুইশার (বৈদ্যুতিক আগুনের জন্য)
- ড্রাই পাউডার এক্সটিংগুইশার

- ফোম এক্সটিংগুইশার (তেল আগুনের জন্য)

সেশন ১২ এবং ১৩: জরুরি পরিস্থিতিতে করণীয়

- ফায়ার অ্যালার্ম বাজলে কী করতে হবে
- পাওয়ার প্ল্যান্টের Autmation সিস্টেম কাজ না করলে করণীয়
- নির্ধারিত পথে বের হয়ে যাওয়া
- কন্ট্রোল রুমে যোগাযোগ করা

সেশন ১৪: উদ্ধার ও নিরাপদে বের হওয়া এবং ব্যক্তিগত নিরাপত্তা সরঞ্জাম (PPE)

- উচ্চ ভোল্টেজ এলাকা থেকে নিরাপদে বের হওয়া
- ধোঁয়ার মধ্যে থেকে বের হওয়ার কৌশল
- নির্ধারিত সমাবেশ স্থানে (Assembly Point) যাওয়া
- সবাই উপস্থিত আছে কিনা যাচাই করা
- আগুন প্রতিরোধী পোশাক
- হেলমেট, গ্লাভস, সেফটি জুতা
- ধোঁয়া থেকে বাঁচার মাস্ক

সেশন ১৫: ব্যবহারিক প্রশিক্ষণ

- আগুন নেভানোর সরঞ্জাম ব্যবহার করে অনুশীলন
- জরুরি সময় বিল্ডিং খালি করার ড্রিল
- ট্রান্সফরমার ফায়ার মক ড্রিল
- সীমিত জায়গা থেকে উদ্ধার অনুশীলন