



**SAFETY MANUAL**

## Contents

1.0	Purpose .....	7
2.0	Scope.....	7
3.0	Policy Statement .....	7
3.1	American Industrial Construction Philosophy .....	7
3.2	Incident-Injury Free Culture.....	7
3.3	Continuous Improvement .....	7
3.4	Roles and Responsibilities.....	7
4.0	Administration .....	10
4.1	Project Notices and Posting Requirements .....	10
4.2	Employee Training /Orientation .....	10
4.2.1	Training Documentation .....	10
4.2.2	Training Instructors.....	10
4.2.3	Training Time Duration .....	10
4.2.4	Training Information Retention Assessment .....	10
4.2.5	Additional Training.....	11
4.2.6	Training Documentation .....	11
4.2.7	Superintendent Orientation.....	11
4.2.8	OSHA 300 Log.....	11
4.3	Safety Meetings (Tool Box Meetings) Daily - Weekly .....	11
4.3.1	Daily Tool Box Meetings.....	11
4.3.2	Weekly Safety Meetings .....	12
4.3.3	Supervisory Roles and Responsibilities for Safety Meetings .....	12
4.4	Pre-Job Safety Plan.....	12
4.4.1	Safety Task Assessment (STA) – Risk Assessments .....	12
4.4.2	Self Assessment Checklist (SAC) – (See).....	14
4.4.3	American Industrial Construction Permitting System (See 17.0) .....	15
4.4.4	Permit Signatory Requirements.....	16
4.5	Disciplinary Program .....	16
4.6	Pre-Placement Physical Examinations/Drug – Alcohol Testing .....	18
4.6.1	Drug and Alcohol Testing .....	18
4.7	Medical Treatment Services .....	22
4.7.1	Medical Case Management .....	22

4.7.2	Medical Monitoring .....	22
4.8	Emergency Action Planning .....	22
4.8.1	Weather Planning .....	23
4.9	Regulatory Compliance Inspections.....	24
4.10	Competent Person Designation .....	24
4.11	Employee Reported Hazards.....	25
4.12	Investigations .....	25
4.12.1	Incidents / Employee Injuries Outside Physical Project.....	25
4.13	Area Safety Manager Inspections .....	25
4.14	Weekly Superintendents Audit .....	25
5.0	Office Safety.....	26
5.1	Basic Rules and Practices .....	26
o	Emergency Control.....	31
5.2	Job Visits by Office Personnel / Vendors / Third Party .....	33
6.0	Personal Protective Equipment .....	34
6.1	Eye and Face Protection.....	34
6.2	Head Protection .....	35
6.3	Respiratory Protection .....	37
7.0	Operations / Work Practices.....	37
7.1	Basic Safety Rules.....	37
7.2	Hazard Warnings / Barricades.....	39
o	Yellow Woven Barricade Tape .....	39
7.3	Confined Space Entry .....	39
7.4	Assured Grounding .....	44
7.5	Electrical Equipment and Tools.....	46
7.6	Power Tools and Equipment .....	47
7.7	Energy Isolation Control (EIC) .....	52
7.8	Excavation .....	54
7.9	Abrasive/Hydro Blasting/Pressure Washing .....	58
7.10	Housekeeping.....	61
o	Scheduled pick-up.....	61
o	Waste Containers.....	61
7.11	Oxy-Fuel Cutting / Heating – Compressed Gas Cylinders – Welding.....	61
o	Welding .....	66
7.12	Rigging Practices .....	71

7.13	Material Handling, Storage, and Transportation .....	73
7.14	Ladders .....	75
7.15	Scaffolding.....	77
o	Scaffolding Competent Person .....	77
o	Personnel Requirements.....	77
o	Scaffolding Material/Pre-erection Inspection Requirements .....	77
o	Erection Requirements .....	77
o	Scaffolding Inspection and Tagging System .....	79
7.16	Floors / Grating Openings .....	79
7.17	Line /Flange Breaking.....	80
7.18	Elevated Work .....	81
7.19	Night Work .....	82
o	Lighting Requirements .....	83
8.0	Occupational Health & Environmental Controls.....	83
8.1	Hazard Communication .....	83
o	Material Safety Data Sheets.....	83
o	Labeling .....	84
o	Employee Training .....	84
o	Informing Other Employers .....	85
o	Non-Routine Tasks .....	85
8.2	Blood Borne Pathogens.....	85
8.3	Drinking/Potable Water and Eating Facilities .....	86
8.3.1	Eating Facilities.....	86
8.4	Sanitary Facilities .....	86
8.5	Heat and Hot Working Conditions .....	87
8.6	Hearing Protection Program .....	87
8.7	Breathing Air Quality and Systems.....	88
8.7.1	Breathing Systems Using Air Cylinders .....	88
8.7.2	Employee Training .....	89
8.7.3	Emergency Rescue .....	89
8.8	Radiation / Radiographic Control.....	89
9.0	Mobile Equipment .....	90
9.1	Cranes, Derricks, Hoists, Conveyors, and Aerial Lifts.....	90
9.1.1	Operators of Material Handling Equipment .....	91
9.1.2	Cranes and Derricks .....	92

9.1.3	Hammerhead Tower Cranes .....	94
9.1.4	Hydraulic Cranes .....	94
9.1.5	Crane Suspended Work Platform.....	96
9.1.6	Personnel Hoists – Fixed .....	97
9.1.7	Aerial Work Platforms – Requirements .....	97
9.1.8	J.L.G. Type Work Platform.....	98
9.2	Pre-Operational and Daily Inspections .....	99
9.3	Pre-Operational Inspection.....	99
9.4	Daily Inspection.....	101
9.5	Mobile Crane Training and Qualifications .....	102
9.6	Mobile Crane Operations and Practices .....	102
9.7	Operator / Superintendent Responsibilities .....	102
9.8	Lifting Consideration and Requirements: .....	104
9.9	Crane Requirements .....	105
9.10	Man Basket Requirements.....	105
9.11	Use of Man Baskets .....	106
9.12	Testing and Inspecting .....	107
9.13	Safe Work Practices .....	107
9.14	Appointment and Duties of Specific Personnel .....	107
9.15	Man Basket Review / Approval Package.....	107
9.16	Critical Lift Form.....	108
9.16.1	Aerial Lifts, Vehicle-Mounted Work Platforms .....	108
9.16.2	Inspection and Operator Test .....	110
9.17	Forklift Operations and Practices.....	110
9.17.1	Operator Qualifications, Training and Certification Requirements .....	110
9.17.2	Work Practices .....	110
9.17.3	General Operations.....	112
9.18	Motor Vehicle Operations and Practices .....	112
9.18.1	Personal Vehicle Entry .....	114
9.18.2	Construction Vehicles .....	114
9.18.3	Vehicle Requirements .....	114
9.18.4	Vehicle Practices .....	114
10.0	Fire Prevention & Protection.....	114
10.1	Fire Prevention.....	116
10.1.1	Flammable Liquids .....	116

10.1.2	Good Housekeeping to Prevent Fires .....	117
10.1.3	Safe Handling and Storage of Flammable & Combustible Material .....	117
10.1.4	Equipment Fueling Instructions .....	119
10.1.5	Proper use of Fire Fighting Equipment .....	119
11.0	Environmental Controls .....	120
12.0	Warehouse, Shops & Storage Areas .....	120
12.1	Warehouse safety storage .....	120
12.1.1	Work Areas.....	120
12.2	Requirements for Shop Areas .....	121
12.3	Pipe Fabrication Shop .....	123
13.0	Cellular Control .....	124
14.0	Marine Work .....	124
15.0	Tower Cranes .....	125