

## INDEX

-A-

Abrasive blasting .....	112-117, 276-277
equipment .....	276
Access .....	575
Haul roads .....	46-47
Ladder.....	522
Route.....	43
Accident prevention	
plan .....	2, 4, 13, 638, A-1
signs, tags, labels .....	143-144, 150, 152, 158-160, 166
Accidents .....	1, 14, 17, 20, 47, 107, 289
Activity hazard analysis (See also hazard analysis).....	2, 10, 114, 654, 724
Aerial lift.....	251, 252, 387, 492, 509-512,
.....	557-559, 748, 751, 760, B-8
Aircraft .....	18, 113, 126, 700, 763, 766, 779, 781
Airfield operations .....	763
Alarm systems .....	
Emergency.....	685
Fire.....	197-198
General.....	451
Monitor.....	739
All terrain vehicles (ATVs) .....	409, 422, 437-439
Anchor Handling Barge.....	370
Antimony .....	295
Arc welding and cutting .....	203, 212, 213
cables and connectors.....	
Arc Flash.....	72, 75, 216, 219, 220, 504
Incident/Accident.....	18
Arsenic.....	129, 205
Asbestos.....	5, 90, 92, 565
Assured equipment grounding conductor program .....	226-227, D-1
Attachment plugs and receptacles .....	218
Automatically darkening lenses.....	
Automatic External Defibrillator (AED).....	39, 40, 718
Automatic feeding devices.....	271

-B-

Backup alarms (Reverse signal alarms).....	309,411, 412
Barium .....	205
Batteries and battery charging.....	232, 234, 450, 451, 701, 709
Beryllium.....	205, 206
Blasting 435, 626, 629, 635, 636, 639-642, 695-697, 699, 700, 704-715, 728, 739	

EM 385-1-1  
15 Sep 08

Blind (in one eye).....	58
Body belt/harness systems.....	506/72, 396, 493, 503, 504, 508, 510, 544, 749
Boiler and Pressure Vessel Code .....	477, 485, 486
Boilers.....	485, 486
Boom - see cranes and derricks	
Brush chippers.....	756, 757
Brush removal and chipping.....	755
Bulletin Board, Safety and Health .....	1
Burning operations .....	169, 208, 633

-C-

Cadmium.....	6, 205
Cage boom guards .....	232
Caissons - see underground construction	
Carabiners/Snaphooks.....	505
Carbon monoxide .....	118, 739, 740
Carbon tetrachloride .....	192
Cardiopulmonary resuscitation (CPR).....	6, 33, 38, 39, 42, 474, 684, 718, 745
Caution signs.....	62, 146, 147, 195
Cement .....	129, 281, 283
Certified Welder.....	204, 390
For ROPs.....	388, 417
Chain .....	295-297, 300, 384, 424, 465, 466, 545, 578
Conveyors .....	401
Lockers .....	326, 329, 368
Chain saws .....	51, 276, 751, 752, 759-761
Change rooms .....	
Chemical agent.....	770, 782, 786
Chopping tools.....	761
Christmas tree lifting (See Multiple Lifting/Rigging) .....	
Chromium .....	129, 130, 205, 206, 214
Circuit breaker .....	225, 226, 241
Classified locations (See also Hazardous (classified) Locations).....	234, 236
Cobalt .....	205
Code for Unfired Pressure Vessels .....	481
Cofferdams .....	491, 590, 602, 705
Collateral Duty Safety Officer (CDSO).....	13
Combustible liquid .....	174, 177
Communication facilities.....	256
Compressed air .....	116, 481, 484, 485, 713, 718
blasting .....	520, 529, 535
cleaning.....	136, 482
work/work plan.....	16, 17, 637, 638, 639, 641
Compressed gas .....	211
cylinders.....	168, 486, 488, 489

Compressors .....	225, 481, 482, 625, 738, 739
Confined space (See also Permit-required confined space .....	117, 186, 205, 435
.....	589, 595, 613, 683, 688, 689, 789-796
Marine Facilities.....	795-796
Construction areas .....	63, 141, 152, 311, 431, 620
Contact lenses .....	57
Contract diving operations.....	719
air compressor systems.....	718
altitude dive tables.....	723, 738
bell .....	735-737
breathing air supply hoses.....	740
briefing .....	729
decompression sickness/pulmonary barotraumas .....	728
dive log .....	727
dive operations plan .....	720-722, 725
dive teams. ....	729, 720, 724, 729, 738, 741, O-1
divers .....	454, 512, 717-745
emergency and first aid equipment. ....	743
equipment. ....	726
mixed-gas diving .....	737
power tools .....	743
pre-dive conference.....	719, 724, 725
safe practices manual.....	720, 721
SCUBA diving operations.....	733-734
surface supplied air .....	717-743
Control of hazardous energy (See also Hazardous Energy)....	257, 260, 399, 724
Controlled Access Zone (CAZ) .....	495
Conveyors.....	399-407, 621, 631
Copper.....	113, 205, 243
Covers (hole).....	499
Cranes and derricks .....	307
anti-two block (upper limit) device .....	337-339, 381, 392
boom, angle/radius indicator .....	336, 339, 392
boom, assembly and disassembly .....	253, 357
boom, hoist disengaging device .....	328
boom, stops .....	328, 335
communication .....	310, 315, 347, 355, 360, 376
crawler-, truck-, wheel-, and ringer-mounted cranes.....	357
critical lifts .....	289, 311, 319-320, 343, 347, 353, 355, 367, 387, 653, 731
derricks .....	245, 256, 307, 319, 322, 326, 329,
.....	334-337, 356, 363-368, 373-375, 656, 657
drum rotation indicators.....	340
duty cycle.....	337, 338, 340, 380, 461
and electricity.....	222, 230, 232, 245, 255, 256
environmental considerations.....	356
floating .....	307, 326, 334, 338, 341, 363, 451

EM 385-1-1  
15 Sep 08

gantry.....	230, 307, 319, 334, 343, 345, 352, 354, 371, 587
helicopter .....	153, 375-377, 379
inspection criteria .....	321-344, I-1
inspections, frequent .....	325, 326
load indicating device .....	340
load moment indicator .....	340
load performance test .....	341, 342, 397
luffing jib .....	337, 339
mobile .....	307, 359
monorails .....	307, 319, 320, 373
multiple lifting (multiple lift rigging).....	
on-rubber rating .....	359
operators.....	312, 313, 316-320
operational performance test.....	316, 328, 386, 387, 417
operators, examination and qualification.....	311-321
outriggers.....	251, 324, 340, 354, 358, 359, 383, 393
overhead.....	319, 334, 343, 345, 352, 354, 360, 372
periodic inspections .....	262, 267, 326, 380
pillar .....	334, 359
portal.....	307, 319, 359
tandem/tailing crane lifts.....	347, 356
testing requirements .....	396, I-1
tower(hammerhead) .....	307, 319, 324, 334, 359-362
underhung .....	319, 320, 373
Cumulative trauma prevention.....	125
Cutting, arc and gas .....	55, 207

-D-

D-rings .....	504, 505, 506, 509
Dead Man (Kill) Switch.....	469
Debris nets.....	284, 285, 500, 501
Deficiency Tracking Log.....	2
Demolition.....	565
engineering survey .....	565
mechanical .....	572
plan .....	565
Derricks - see cranes and derricks	
Detonating cord .....	697, 709, 710
Dielectric test .....	232
Diesel fuel .....	632-633
Disconnects .....	221, 240, 241
Dive tables .....	723, 738
Diving Operations.....	717, O-1
See also Contract Diving Operations	
Dose Limits .....	100-101

Dosimetry.....	99, 101, 102
Double insulated.....	224
Dredging.....	471
Disposal Sites.....	473
Hopper dredges.....	473
Drilling equipment.....	433-435, 707
Drilling machines.....	634
Drinking water.....	21-23, 120, 473
Dump trucks.....	410, 424, 430, 431
Dust.....	136, 170, 197, 235, 236, 237, 283, 377, 437, 630, 641, 696, 763

-E-

Electrical.....	215; 6, 16, 40, 51, 57, 63, 73-76, 170, 203
conductors.....	213, 516, 575, 644
conductors, overhead.....	230
conductors, stringing.....	247, 248
electrical protective equipment.....	73, 74
isolation.....	215, 260-264, 792
overload protection.....	221, 361
qualified person.....	215
substations.....	243, 255, 256
storms.....	251, 436, 447, 677
temporary wiring and lighting.....	227-229
underground electrical installations.....	254
Electrician, Qualified Person.....	215
Electrician, verifiable credentials.....	215
Electromagnetic.....	110, 111, 256, 704, 773
Elevating work platform.....	389, 556
Emergency	
descent devices.....	516
eye wash.....	87, 88
lighting and power systems.....	450
medical technician.....	40
operations.....	20, 51, 325, B-1
planning.....	19, 449, 684, 691
response.....	4, 14, 20, 33, 63, 86, 93, 100, 440, 615, 616, 654, 681
.....	688-691, 693
Shower.....	87
Enclosed spaces.....	204, 268, 456, 795
Engineering/administrative controls.....	7, 49, 85, 91, 92, 98, 103, 104, 110, 115,
.....	129, 130, 135-137, 214, 683, 687, 689, 792, 795
Environmental monitoring.....	92, 123
Epoxy resins.....	35
Examiner.....	313, 314, 316, 427
Excavations.....	9, 427, 492, 589, 764

EM 385-1-1  
15 Sep 08

Class I perimeter protection.....	595
Class II perimeter protection .....	595
Class III perimeter protection.....	596
inspection and testing.....	590
mobile equipment and motor vehicle precautions.....	594
protection from falling material .....	594
protection from water.....	593
protective systems.....	590-592, 599
qualified person.....	
shield systems.....	600
sloping and benching.....	597, 605-610
trenching.....	6, 589, 601
Explosive-actuated tools.....	274, 275
Explosives.....	51, 192, 353, 419, 421, 566, 590, 617, 635, 639, 695, 767
Eye and face protection.....	51, 52, 57, 58, 74

-F-

Face masks and hoods .....	58, 96, 117, 119, 270
Fall protection .....	9, 72, 76, 77, 387, 394, 396, 461, 464, 474, 491, 515, 543, 559, 562, 576, 581, 583, 590, 643, 650, 674, 749
warning line systems .....	310, 493, 510, 577, 584
personal fall arrest systems and positioning devices.....	394, 491, 502
.....	504, 508, 650, 674, 675, 749
safety nets .....	77, 284, 491,
Fall Plan.....	494-495
Controlled Access Zones.....	495
Self-Retracting Lifeline (SRL).....	505
Horizontal LifeLine (HLL).....	507
Vertical LifeLine (VLL).....	507
Restraint Systems.....	508
Safety Monitoring System (SMS).....	511
Full Body Harnesses (See Body Belts/Harnesses)	
Falling object protective structures.....	415
Fencing .....	43, 400, 618
Fiberglass-Reinforced Plastic (FRP).....	76
Fire	
alarm systems; watches .....	197, 198, 623
blankets .....	192
detection systems.....	197
extinguishers .....	93, 149, 190, 411, 423, 469, 621, 631, 702
extinguishers, approved .....	190
extinguishing, chlorobromomethane .....	192
extinguishing systems, fixed.....	195
fighting equipment .....	149, 160, 170, 192, 196, 199, 201, 616

fighting organizations, training and drilling .....	198
lanes .....	170
patrols .....	199
prevention and protection .....	167, 630
prevention and protection plan .....	167, 630
protection, first response .....	190
protection, in the construction process .....	170
protection, standpipe and hose system .....	193
suppression systems, fixed .....	160, 195
First aid .....	6, 18, 20, 33-41, 96, 121, 141, 149, 159, 160, 199, 201, 411, 474, 616, 684, 692, 725, 731, 743, 745
attendant .....	40
facilities .....	616
kits .....	36, 411
station .....	34, 39, 616
Fit testing - see respirators	
Flag Person .....	154, 712
Flammable	
atmosphere .....	207
gases .....	207, 622, 628
liquid .....	27, 89, 90, 95, 160, 170, 172, 175, 176, 189, 213, 796
materials .....	208, 421, 476, 483, 566
Flammable and combustible liquids .....	172, 175-177, 284
Diking/curbing .....	176, 593
portable tanks .....	173, 177
storage cabinets and areas .....	174, 176, 182, 199, 280, 577, 617, 630, 632
storage tanks .....	174, 479
Flashlight .....	709
Flexible cords .....	217
Float Plans .....	470
Floating cranes and derricks - see cranes and derricks	
Floating plant .....	78, 153, 221, 228, 232, 329, 429, 445, 491, 495, 796
Access .....	
escape hatches and emergency exits .....	452
inspection and certification .....	445
personnel qualifications .....	446
See Dredging and Launches, Motorboats, and Skiffs	
Floor and wall holes and openings .....	491, 570, 571, 575, 584, 659, 660,
Floor removal .....	571
Fluorine .....	206
Flying objects, protection against .....	75, 376, 414, 415
Foodservice .....	29, 30
Forklift (PITs) .....	431
Formwork .....	170, 492, 549, 646, 647, 650
Fueling .....	187, 308, 422, 428, 633

EM 385-1-1  
15 Sep 08

Fuses .....	218, 222, 703, 773
Fusible Plugs.....	486

-G-

Gas metal arc welding .....	59, 214
Gassy operations.....	622-630
Generators	
Portable.....	223, 226
vehicle-mounted .....	222, 223
Glare-resistant glasses.....	58
Grinding and abrasive machinery.....	55, 112, 269, 270, 655
Ground/grounding.....	222
Electrode.....	223, 225
frame grounding .....	213, 223
protective .....	224, 263
Guardrails, standard .....	77, 309, 310, 413, 390, 421-22, 455, 459, 491-493, 495
499, 507, 510, 525, 545, 550, 561, 563, 568, 582, 596, 602, 634, 644, 650, 678	

-H-

Hand protection .....	51
Hand signals .....	153, 289, 319, 347, 349, 355, 379, 443
Hand tools.....	225, 516, 267
Hand-arm vibration .....	125
Hand lamps, portable .....	219
Handrails.....	329, 460, 515, 582, 655
Harmful plants, animals, and insects.....	96
Haul roads .....	46-48, 429
Hazard analysis .....	
Activity Hazard Analysis.....	2, 114
Arc Flash Analysis.....	654, 724
Diving.....	729
Position hazard analysis.....	4, 6, 7, 10
Hazard communication.....	85
Hazardous classifications.....	622
Hazardous locations .....	170, 234, 402, 457, 617
Hazardous energy, control .....	257
Program (HECP) /Procedures.....	259, 265, 724, 731
Hazardous materials.....	173, 174, 203, 209, 353, 475, 476
Hazardous substances, agents, environments .....	87, 595, 683, 691, 692
Hazardous, toxic, and radioactive waste.....	6, 681
Head protection .....	63, 74, 441, 442, 761
Hearing	
conservation .....	60, 62
protection.....	60-62, 116-118, 761
Heat/cold stress monitoring plan .....	119, 730



Heating devices .....	93, 94, 184, 185
Fuel-combustion space .....	186
Melting Kettles.....	93
open-flame heating devices.....	185
Herbicides.....	28
High Visibility Apparel/Vests.....	66, 67, 154, 423, 594
Hoisting.....	95, 246, 273, 287, 295, 303
Equipment.....	16, 280, 290, 307
Class IIIA.....	320
Class IIIB.....	321
Operators.....	321
Inspection.....	321
Employees.....	389
Wire ropes .....	345
Hooks .....	288, 297, 301-304, 323, 348, 374, 383, 389, 391
.....	456, 501, 521, 535, 543, 545, 582, 621, 637, 657, 749, 759, 761
Hot or molten substances.....	58
Hot stick distances.....	240
Hot tapping .....	209
Hot work permits.....	93, 207
Housekeeping.....	21, 91, 92, 135, 149, 159, 167, 168, 283, 377, 500
Hydraulic	
fluid .....	632
tools .....	243
Hydrocarbons .....	236, 740
Hydrogen sulfide.....	625-627
Hydrostatic testing .....	477

-I-

Impalement hazards .....	492, 595, 643
Inclement weather .....	119, 421, 468
Indoctrination .....	13
Industrial hygienist.....	84-87, 126, 685, 795
Infirmaries .....	39, 40, 141
Inflatable PFDs.....	77, 78, 448, 733
Insecticides.....	28
Insects .....	6, 31, 96
Insulating/insulation	
links.....	232
mats .....	218
Interpretations.....	M-1
Intrinsically safe .....	234, 451
Ionizing radiation.....	97, 101, 107, 160, 682, 685
warning signs, labels, signals.....	150, 160

EM 385-1-1  
15 Sep 08

-J-

Jumbos ..... 634, 635

-K-

Kill Switch (Dead Man).....469

-L-

Labels ..... 104, 143, 150, 151, 329, 502, 557, 579  
Ladder Climbing Device.....509  
Ladders..... 95, 141, 203, 204, 243, 245, 324, 383, 385, 421, 455, 458,  
459, 482, 491, 508, 509, 515, 516, 522, 547, 558, 559, 561, 567, 575, 576, 578-  
582, 596, 597, 636, 638, 655, 748.....  
Lanyards..... 72, 502, 505, 506, 508, 510, 544, 749  
Lasers ..... 108, 110  
Launches, motorboats, and skiffs..... 77, 457, 468-470  
Lead ..... 5, 90, 91, 98, 121, 205, 233, 243, 565  
Licensed physician ..... 16, 17, 34, 39, 133, 719, 745  
Licensed physician's assistant ..... 40  
licensed practical nurse ..... 40  
Lifeline ..... 493, 494, 498, 507, 510, 544, 577, 752  
Life ring .....78, 80  
Life saving and safety skiffs..... 79, 464  
Lift trucks (Aerial)..... 244  
Lift trucks (PITs).....432  
Lift-slab operations ..... 651, 652  
Lifting - see safe lifting  
Lighting ..... 4, 40, 48, 78, 139-141, 170, 227-229, 235, 237, 357, 450, 615-617,  
..... 632, 640, 793  
Lime ..... 281, 283  
Limited access zone ..... 676  
Limited Service Contract.....12, A-1  
Lineman's equipment..... 72, 504  
Liquefied petroleum gas (LP-Gas) ..... 179, 180, 182-189, 470, 632  
Live-line bare-hand..... 240, 250-252  
Lockout and tagout (Control of Hazardous Energy).....152, 216, 258-261,  
..... 323, 426, 479, 724, 728  
Locks/Tags.....262  
Long-bed end-dump trailers ..... 417

-M-

Machinery and mechanized equipment..... 409, 422, 424, 426  
Maintenance Vehicles.....421

Manganese.....	205
Manned/Unmanned Vessels.....	461, 462
Manual on Uniform Traffic Control Devices (MUTCD).....	48, 144
Marine activities.....	445, 456
Masonry construction.....	644, 676, 677
Material	
handling, storage, disposal.....	279
hoists.....	334, 348, 377, 380, 382, 417
Material Safety Data Sheets.....	7, 86, 89, 433
Medical.....	33
facilities.....	14, 33, 685
examinations.....	69, 107, 133, 317
surveillance.....	91, 93, 107, 115, 125, 130, 133, 135, 201, 683, 688-691
Medically qualified.....	15
Melting kettles.....	93, 94
Mercury.....	205
Methane.....	622, 623, 625-628, 740
MILCON Transformation.....	3
Motor vehicles.....	16, 181, 409, 410, 414, 422, 423
Activities while driving.....	418
Contractor.....	417
USACE.....	417
Operating Limits – 10/12 hour rule.....	16
Multiple Lift Rigging.....	289-291, 354
Munitions and Explosives of Concern (MEC).....	767-768

-N-

National Board of Boiler and Pressure Vessel Inspectors.....	447
Navigation locks.....	80, 475
Nickel.....	114, 205
Noise hazard areas.....	62
NonIonizing radiation.....	108
Nonmetallic.....	168, 617, 757
Non-sparking tools.....	268

-O-

Open hooks, pelican.....	303, 456
Operators.....	16, 274, 276, 311-321, 343, 364, 370, 373, 386, 409, 413, 415, 417, 418, 420, 421, 427, 696
ATVs.....	438
Boat, Motorboat.....	446, 471
PITs (forklifts, lift trucks).....	432
Utility Vehicles (UVs).....	439, 441

EM 385-1-1  
15 Sep 08

Outrigger beams.....	535-537, 542
Overcurrent device/protection .....	221
Overhead guards.....	414
Oxyfuel gas cutting and welding.....	209, 211
Oxygen cylinders .....	209, 489
Oxygen deficient atmosphere.....	111
Oxygen enriched atmosphere .....	207, 738
Ozone.. ..	205

-P-

Paint barges.....	174
Paints .....	6, 28, 129, 176, 204, 206, 273
Perimeter Protection.....	
Floating Plant, Main Deck PP.....	461-466, U-1
Excavations.....	595-596
Permit-required confined space.....	789-796
entry procedures.....	790
program .....	791
Personal fall protection - see fall protection	
Personal flotation devices.....	77-79
lights .....	78
Personal protective equipment	
.....	4, 7, 49, 110, 116, 117, 289, 687, 689, 792
clothing .....	29, 58, 70, 75, 91, 97, 110, 135, 137, 220
footwear.....	65, 66
see specific type	
Photogrey Lenses (Auto-darkening).....	58
Physical qualifications .....	15, 317
Physicians - see licensed physician	
Pile driving .....	339, 382, 385, 463, 603
PITs (See Forklift)	
Planking.....	381, 518, 519-521, 530, 531, 542, 554, 572, 576, 587
Plants, poisonous .....	96, 97
Platforms.....	21, 80, 141, 218, 309, 310, 377, 381, 389-392, 394, 413, 458, ..... 491, 509-522, 534-555, 557, 560, 576, 587, 634, 638, 678, 749
Position Hazard Analysis.....	4, 6, 7
Positioning device - see fall protection	
Post-tensioning.....	644
Potentially gassy operations.....	622, 623
Power Driven Nailers, Staplers.....	277
Pre-cast concrete operations.....	643, 650, 651, 655
Preparatory inspection.....	258, 434
Preservative coatings .....	204
Pressurized equipment and systems .....	477, 479
Process safety management.....	89

Project safety and health plan ..... 3, 4, 8, 63, 65, 119  
Public ..... 44, 46, 48, 99, 103, 104, 106, 112, 126, 143, 148, 150, 153,  
..... 182, 198, 200, 228, 258, 259, 263, 402, 406, 412, 416, 422,  
..... 438, 441, 443, 445, 446, 512, 594, 677, 695, 700, 702, 705

-Q-

Qualified Rigger.....288, 290, 657  
Qualified Operator.....274  
Qualified Person.....9, 10, 13, 14, 88, 167, 172, 215, 218, 219, 302, 307,  
..... 322, 326, 327, 330, 332, 333, 341, 343, 346, 355, 358, 360,  
.....361, 364, 367-369, 373, 380, 392, 409, 436, 445, 501-507,  
..... 512, 534, 556, 558, 593, 618, 620, 653, 663-665, 672-677, 747

-R-

Radiant energy ..... 58, 214  
Radiation...(See also Ionizing and Nonionizing).....  
    Electromagnetic.....704, 773  
    monitoring..... 101  
    optical..... 55-57  
    Safety Committee (RSC).....99  
    safety officer ..... 98  
    safety program..... 98, 99,100, 106  
Radio frequency (FF)..... 110, 163  
Radio, two-way & communications ..... 33, 119, 153, 198, 319, 347, 355,  
..... 393, 426, 446, 464, 728, 765, 766  
Radioactive Waste Disposal..... 105  
Rail clamps ..... 335, 362, 383  
Railing (See also guardrails and handrails).....575  
    Marine.....464  
Ramps. .... 459, 587, 596  
Registered nurse ..... 40  
Reinforcing steel..... 282, 643, 645  
Rescue ..... 15, 18, 19, 449, 450, 455, 464, 493, 494, 511, 595, 614,  
..... 615, 654, 692, 725, 750, 791, 794  
Residential-Type Construction.....491, 643, 678  
Respirators ..... 67, 85, 204, 615  
    atmosphere-supplying ..... 69  
    dust masks.....67  
    emergency use self-rescuer devices ..... 615  
    fit testing ..... 69-72  
    medical evaluation.....69  
    program.....68  
    program administrator.....68  
    self-contained breathing apparatus.....71

EM 385-1-1  
15 Sep 08

Reverse-flow check valve.....	211
Reverse signal alarm (see also back-up alarm).....	411
Rigger (see also Qualified Rigger) .....	389, 312, 315, 346, 355, 356, 357
Rigging .....	287, 248
Drums .....	301, 303, 345
fiber rope.....	297, 298
slings.....	299, 307, 387, 488, 534, 545
wire rope.....	291, 330, 334, 391, 498
Ring buoys.....	78-79
Rodents .....	31
Rollover protective structures (ROPS) .....	309, 415-417, 441
Roofing .....	677, 584, 655, 678
brackets .....	562
clothing for roofers.....	95
nailers.....	277
Warning Line System.....	511
Rope - see rigging or wire rope	
Runways.....	95, 280, 372, 373, 381, 382, 575, 587, 763

-S-

Safe lifting techniques .....	279
Safety	
Blocks, floating, .....	80
Control, primary .....	187
Conveyor.....	399
devices.....	179, 203, 267, 273, 275, 309, 315, 323, 324, 328,
.....	335, 361, 368, 370, 395, 448, 485, 645
equipment.....	49, 441, 728
harness .....	734, 743
lashing .....	273, 480
nets – debris.....	284
nets – fall protection.....	77, 491, 500, 501, 512
skiff .....	79, 464
tire rack/cage .....	414
(relief)valves .....	480
Safety and health program .....	1, 12, 13
Sampling.....	84, 131, 207, 795
Air Compressors.....	739
Chromium.....	129
Hydrogen Sulfide.....	626
Mold.....	128
Program.....	683
Sanitation .....	21, 29, 136, 137, 149, 159, 639
Saws - see woodworking machinery	
Scaffolds.....	280, 482, 492, 516, 517, 677, 679

access.....	80, 245
base/mudsills.....	520
bracket.....	523, 549
capacities.....	245, 517
carpenter's bracket.....	523
design.....	517, 527
erection/dismantling.....	509, 515
fall protection.....	492, 509, 510, 576
form.....	549
hanging.....	544
horse.....	552
independent pole scaffolds.....	532
inspection of.....	516
lean-to and prop-scaffolds.....	516
manually-operated hoists.....	538
manually propelled mobile scaffolds.....	527
metal.....	524
metal frame.....	526
operations.....	547
pump jack.....	552
stilts.....	562
suspended.....	213, 510, 533
suspended, mason's multiple-point adjustable.....	536, 542
suspended, stonemasons, multiple-point adjustable.....	543
suspended, support devices.....	535
suspended, support ropes.....	534
tube and coupler scaffolds.....	524
wood pole.....	528
Scaffolds, platforms, or temporary floors.....	491, 516
Scows/Barges.....	474, 459, 463, 461
Seatbelts.....	414, 440, 441
Selenium.....	205
Service/refueling/lubrication areas.....	189, 178
Severe weather.....	447-449, 119, 677
Shackles.....	288-289, 302, 501, 537
Shafts - see underground construction	
Sheaves.....	305, 328
Sheet Pile Stirrups.....	491
Shoring.....	204, 515, 568, 589, 592, 593, 601, 618, 641, 645, 650
Showers.....	28, 29
SignalPerson.....	46, 153, 154, 318, 319, 338, 346-348, 355, 377, 392, 394, 412, 420
Signal systems, procedures.....	153, 154
see spotter	
Signs.....	1, 44, 62, 103, 104, 108, 120, 143-166, 217, 254, 285, 400-406, 420, 434, 455, 456, 472, 493, 557, 568, 613,

EM 385-1-1  
15 Sep 08

.....	618, 623, 631, 644, 696, 708, 713
Silica .....	112-137, 437
Site Safety & Health Officer (SSHO).....	6, 11, 12, 67, 120, 686, 691
Slings - see rigging	
Slip forms.....	649, 650
Sloping/benching - see excavation	
Slow-moving vehicle emblem.....	150, 165, 441
Smoke alarms.....	451
Smoking.....	126, 135, 168, 172, 254, 475, 487, 623, 631, 683, 703
Snaphooks/carabiners.....	505
Snorkeling.....	744
Soap .....	24, 28, 29, 97, 136, 187
Solar radiation .....	121
Solvents.....	6, 126, 176, 214, 236, 286
Sound-pressure.....	60-63
Specialty Vehicles.....	409, 442
Spotter .....	337-339, 420, 434, 512
see signalperson	
Spray guns.....	273
Sprinkler head .....	209
Stairways .....	585, 171, 176, 182, 191, 203, 283, 567
railings .....	585-586
Standard guardrails and handrails – see Guardrails, Handrails	
Static electricity.....	276
Steel	
erection.....	643, 492, 491
removal.....	572
Sump Pumps.....	228
Stilts.....	562
Sun screen.....	121
Switches .....	221, 240, 256, 361, 402
Blasting.....	640
-T-	
Tag lines .....	245, 351, 375, 386, 755
Tank cars/trucks .....	178, 179
Temporary	
building spacing.....	43, 170
facilities.....	43
floors.....	491, 516
heating devices - see heating devices	
lighting .....	140, 228, 229
power distribution systems .....	227
project fencing.....	44



sleeping quarters .....	45, 46, 451, 452
structures .....	43
Throw bags .....	79
Tire service vehicles .....	429
Toe boards.....	309, 383, 413, 459, 461, 496,498, 499, 550, 551, 583
Toilets .....	24-27, 141
Tools .....	
hand.....	225, 516
pneumatic .....	241, 268, 273
power .....	225, 267, 269, 678, 743
Torch valves .....	211
Torches.....	170, 210, 211
Towels .....	25, 29
Towing .....	420, 424, 431, 443, 444
Vessels.....	446, 448, 450, 468, 474
Toxic or corrosive materials (flushing facilities).....	34
Traffic flagging procedures .....	153
Trailer anchoring systems .....	43
Trainer.....	13, 261, 437, 438, 494
Training.....	4, 7, 10, 12, 13-15, 20, 35
Transportation .....	3, 26
Of Personnel.....	421
Of Explosives.....	700
Tree maintenance and removal.....	747, P-1
brush chippers .....	756
brush removal.....	755
cant hooks, cant dogs, tongs, and carrying bars.....	761
chopping tools .....	761
felling .....	753
limbing and bucking.....	758
power saws.....	271, 760
pruning and trimming.....	757
rope access.....	750, P-1
tree climbing .....	750, P-1
trucks .....	748, 757, 759, 760
wedges and chisels .....	762
Trenching - see excavations	
Tubing, polyvinyl chloride and aluminum .....	179
Tunnels .....	34, 141, 228, 402, 458, 613, 639
see underground construction	
UFGS.....	3
Ultraviolet degradation.....	64
Underground construction .....	387, 613

-U-

EM 385-1-1  
15 Sep 08

air monitoring requirements.....	624
air quality standards .....	624, 626
caissons.....	613, 637, 638
fire prevention and protection.....	630
ground support systems .....	619
rescue teams .....	614, 615
shafts .....	613, 614, 635-637
ventilation.....	624, 628, 639
Unexploded ordnance .....	66, 433, 767
Unmanned Vessel.....	461, 462
Utilities .....	360, 433, 456, 566, 590, 595, 750
Utility Vehicles.....	409, 439

-V-

Vanadium.....	205
Variances (& Waivers).....	N-1
Vehicle-mounted elevating and rotating work platforms .....	557
Vent pipes.....	186
Ventilation and exhaust systems.....	111, 629
Vermin control .....	31
Vessel .....	365-371, 445-476
Visitors .....	14, 65, 102, 213

-W-

Waivers (& Variances).....	N-1
Wall	
openings - see floor and wall holes and openings	
removal.....	570
Warning Line System (WLS).....	510
Warning signs.....	44, 108, 145, 254, 400, 696, 713
Washing facilities.....	24, 28, 88, 129, 136
Waste disposal .....	30
Welder, Certified.....	204, 388
Welding and cutting .....	203
Wet locations, electrical.....	222, 228
Wild land fire control .....	199
plan .....	199
teams and operations .....	201
Windshields .....	309, 415, 423, 428
Wire rope - see rigging	
Woodworking	
machinery and saws.....	271
machinery guarding .....	271
Work Clothing, minimum.....	50

Work platforms.....	491, 512, 515
Crane-Supported.....	389
Movable.....	509
Elevating.....	510, 555, 557
Scissors Lift.....	510
Work practice controls.....	85, 87, 206, 214
Work/warm-up regimen .....	121
Working alone at night.....	77
Working alone in remote locations.....	20
Working in Crane-Supported Work Platform, over water.....	387, 394
Working in temporary field conditions.....	28
Working over/above water.....	394
Working over/near water.....	512
Working underground.....	626
Working under loads.....	643

EM 385-1-1  
15 Sep 08

**BLANK**