



Highway Department

Training Guide

Wisconsin County Highway Association
Safety & Training Committee
2022

PREFACE

The Wisconsin County Highway Association (WCHA) has developed this guide with the intention of providing a foundational list of training topics that are relevant to county highway department personnel throughout Wisconsin. This guide is being provided to assist counties in developing and/or expanding their own training program to meet the needs of their operations. It is the responsibility of each county to ensure they are providing the appropriate training for their personnel.

While this guide provides a fairly comprehensive list of training topics for county highway departments to consider, there may be some that do not apply to your highway department or there may be topics that were not included which are necessary or recommended for your operation.

It is the intent of the WCHA to review and update this guide, as needed, in an effort to provide the most current and up-to-date training requirements and recommendations. With 72 counties performing various types and levels of work, as well as changes in training requirements and recommendations, it needs to be understood that compiling all of the relevant training topics needed for all counties will be an ongoing effort.

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Acronym List

AED	–	Automated External Defibrillator
CDL	–	Commercial Driver’s License
CFR	–	Code of Federal Regulations
CPR	–	Cardiopulmonary Resuscitation
DOT	–	Department of Transportation
HR	–	Human Resources
MSHA	–	Mine Safety and Health Administration
OSHA	–	Occupational Safety and Health Administration
OWI	–	Operating While Intoxicated
SPS	–	Administrative Code for Department of Safety and Professional Services

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS

Tier 1 - Initial Training Requirements

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
1	Accident Investigation (Supervisors Only)	• Required initially/when changes occur and recommended every 3 years			
2	Accident Prevention Signs and Tags	• Required initially and every 3 years			
3	Accident / Incident Reporting Procedures	• Required initially/when changes occur and recommended every 3 years	• Posting - annually February thru April	29 CFR Parts 1904.29,32	SPS 332.10
4	AED	• Required initially and every 2 years	• Required for confined space entry		
5	Blood Borne Pathogens	• Required initially and annually	• Exposure control plan & annual program review vaccination status	29 CFR Part 1910.103	SPS 332.50
6	Chain Saw Safety	• Required initially and every 3 years			
7	Confined Space - Non Entry	• Required initially/when changes occur and recommended every 3 years	• Space evaluations • Written permit space program • Annual program & permit review	29 CFR Part 1910.146	SPS 332.28, 332.29
8	CPR	• Required initially and every 2 years	• Required for confined space entry		
9	Diversity Training	• Required initially and every 5 year (annually for management)			
10	DOT Flagger Training	• Required initially and every 2 years			
11	Electrical Safety	• Required initially and every 3 years			
12	Emergency Action / Preparedness	• Required initially/when changes occur and recommended every 3 years	• Written programs • Fire prevention plans	29 CFR Parts 1910.37,38	SPS 332.50
13	Excavation / Trenching Safety	• Required initially and every 3 years	• Excavation dependent	29 CFR Part 1926, Subpart P	SPS 332.38
14	Fall Protection	• Required initially/when changes occur and recommended every 3 years	• Fall hazard assessment • Annual fall protection equipment inspections • Ladder inspections	29 CFR Part 1926, Subpart M	SPS 332.50
15	Fire Extinguisher & Fire Protection	• Required initially and annually	• Visual inspection • Maintenance check Refresher training		
16	First Aid	• Required initially and every 2 years	• Required for confined space entry		
17	Forklift Training (Powered Industrial Truck)	• Required initially and every 3 years	• Operator training • Equipment inspections	29 CFR Part 1910.178	SPS 332.50
18	General Safety Rules	• Required initially/when changes occur and recommended every 3 years			

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS

Tier 1 - Initial Training Requirements

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
19	Hazard Communication	• Required initially/when changes occur and recommended every 3 years	<ul style="list-style-type: none"> • Chemical inventory • SDS management • Labeling 	29 CFR Part 1910.12	SPS 332.50
20	Hearing Conservation	• Required initially and annually	<ul style="list-style-type: none"> • Hearing conservation program • Sound level meter testing • Annual audiograms 	29 CFR Part 1910.95	SPS 332.50
21	Hoisting Equipment	• Required initially	<ul style="list-style-type: none"> • Inspection & Operation 		
22	Lock Out / Tag Out	• Required initially/when changes occur and recommended every 3 years	<ul style="list-style-type: none"> • Machine specific procedures • Periodic inspections • Annual program & permit review 	29 CFR Part 1910.147	SPS 332.50
23	MSHA Training - New Miner	• Required initially	<ul style="list-style-type: none"> • 24-hour training minimum • Dependent on operational needs 	30 CFR Part 46.5	
24	Personal Protective Equipment	• Required initially/when changes occur and recommended every 3 years	<ul style="list-style-type: none"> • Certification of PPE hazard assessment 	29 CFR Parts 1910.132 - 1910.140	SPS 332.50
25	Respiratory Protection	• Required initially and annually	<ul style="list-style-type: none"> • Hazard assessment • Medical evaluation • Annual fit-testing 	29 CFR Part 1910.134	SPS 332.50
26	Skid Loader Training	• Required initially/when changes occur and recommended every 3 years			
27	Servicing Single / Multi Piece Rim Wheels (Select Employees)	• Required initially/when changes occur and recommended every 3 years			
28	Sexual Harassment	• Required initially and every 5 year (annually for management)			

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS

Tier 1 - Initial Training Recommended

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
1	Active Shooter Training / De-escalation	• Recommended initially and every 3 years			
2	Aerial Lift Training	• Recommended initially and every 3 years			
3	Articulating Boom Crane with Winch	• Recommended initially and every 3 years			
4	Blocking and Cribbing Safety	• Recommended initially and every 3 years			
5	Bucket Truck Training	• Recommended initially and every 3 years			
6	Defensive / Distracted Driving	• Recommended initially and every 3 years			
7	Hand and Power Tool Safety	• Recommended initially and every 3 years			
8	Hand Signals - Equipment Operation	• Recommended initially and every 3 years			
9	HR Update / Information	• Recommended initially and every 3 years			
10	Ladder Safety	• Recommended initially and every 3 years	• Inspect for defects		
11	Lifting Safety	• Recommended initially and every 3 years			
12	Managing Stress in the Workplace	• Recommended initially and every 3 years			
13	Mounting and Dismounting Equipment Safely	• Recommended initially and every 3 years			
14	Power Line Safety	• Recommended initially and every 3 years			
15	Slips / Trips / Falls Prevention	• Recommended initially and every 3 years			
16	Summer Safety (Heat Stress, Bugs and Poisonous Plants)	• Recommended initially and every 3 years			
17	Traffic Control Training	• Recommended initially and every 3 years			
18	Transporting Construction Equipment	• Recommended initially and every 3 years			
19	Truck, Loader, & Carry deck Training	• Recommended initially and every 3 years			
20	Vehicle Pre-Trip Training	• Recommended initially and every 3 years			

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS

Tier 2 - Annual Trainings

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
1	Blood Borne Pathogens	• Required initially and annually	• Exposure control plan & annual program review • Vaccination status	29 CFR Part 1910.103	SPS 332.50
2	Fire Extinguisher & Fire Protection	• Required initially and annually	• Visual inspection • Maintenance check • Refresher training		
3	Hearing Conservation	• Required initially and annually	• Hearing conservation program • Sound level meter testing • Annual audiograms	29 CFR Part 1910.95	SPS 332.50
4	MSHA Training - Refresher	• Required annually	• 8-hour refresher training • Dependent on operational needs	30 CFR Part 46.8	
5	Respiratory Protection	• Required initially and annually	• Hazard assessment • Medical evaluation • Annual fit-testing	29 CFR Part 1910.134	SPS 332.50
6	Diversity Training	• Required initially and every 5 year (annually for management)			
7	Sexual Harassment	• Required initially and every 5 year (annually for management)			

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS**Tier 3 - Required Training Every 2 Years**

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
1	AED	• Required initially and every 2 years	• Required for confined space entry		
2	CPR	• Required initially and every 2 years	• Required for confined space entry		
3	DOT Flagger Training	• Required initially and every 2 years			
4	First Aid	• Required initially and every 2 years	• Required for confined space entry		

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS

Tier 4 - Required Training Every 3 Years

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
1	Accident Prevention Signs and Tags	• Required initially and every 3 years			
2	Chain Saw Safety	• Required initially and every 3 years			
3	Electrical Safety	• Required initially and every 3 years			
4	Excavation / Trenching Safety	• Required initially and every 3 years	• Excavation dependent	29 CFR Part 1926, Subpart P	SPS 332.38
5	Forklift Training (Powered Industrial Truck)	• Required initially and every 3 years	• Operator training • Equipment inspections	29 CFR Part 1910.178	SPS 332.50

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS

Tier 4 - Recommended Training Every 3 Years

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
1	Accident Investigation (Supervisors Only)	• Required initially/when changes occur and recommended every 3 years			
2	Accident / Incident Reporting Procedures	• Required initially/when changes occur and recommended every 3 years	• Posting - annually February thru April	29 CFR Parts 1904.29,32	SPS 332.10
3	Active Shooter Training / De-escalation	• Recommended initially and every 3 years			
4	Aerial Lift Training	• Recommended initially and every 3 years			
5	Articulating Boom Crane with Winch	• Recommended initially and every 3 years			
6	Blocking and Cribbing Safety	• Recommended initially and every 3 years			
7	Bucket Truck Training	• Recommended initially and every 3 years			
8	Confined Space - Non Entry	• Required initially/when changes occur and recommended every 3 years	• Space evaluations • Written permit space program • Annual program & permit review	29 CFR Part 1910.146	SPS 332.28, 332.29
9	Defensive / Distracted Driving	• Recommended initially and every 3 years			
10	Emergency Action / Preparedness	• Required initially/when changes occur and recommended every 3 years	• Written programs • Fire prevention plans	29 CFR Parts 1910.37,38	SPS 332.50
11	Fall Protection	• Required initially/when changes occur and recommended every 3 years	• Fall hazard assessment • Annual fall protection equipment inspections • Ladder inspections	29 CFR Part 1926, Subpart M	SPS 332.50
12	General Safety Rules	• Required initially/when changes occur and recommended every 3 years			
13	Hand and Power Tool Safety	• Recommended initially and every 3 years			
14	Hand Signals - Equipment Operation	• Recommended initially and every 3 years			
15	Hazard Communication	• Required initially/when changes occur and recommended every 3 years	• Chemical inventory • SDS management • Labeling	29 CFR Part 1910.12	SPS 332.50
16	HR Update / Information	• Recommended initially and every 3 years			
17	Ladder Safety	• Recommended initially and every 3 years	• Inspect for defects		
18	Lifting Safety	• Recommended initially and every 3 years			

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS

Tier 4 - Recommended Training Every 3 Years

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
19	Lock Out / Tag Out	• Required initially/when changes occur and recommended every 3 years	• Machine specific procedures • Periodic inspections • Annual program & permit review	29 CFR Part 1910.147	SPS 332.50
20	Managing Stress in the Workplace	• Recommended initially and every 3 years			
21	Mounting and Dismounting Equipment Safely	• Recommended initially and every 3 years			
22	Personal Protective Equipment	• Required initially/when changes occur and recommended every 3 years	• Certification of PPE hazard assessment	29 CFR Parts 1910.132 - 1910.140	SPS 332.50
23	Power Line Safety	• Recommended initially and every 3 years			
24	Skid Loader Training	• Required initially/when changes occur and recommended every 3 years			
25	Servicing Single / Multi Piece Rim Wheels (Select Employees)	• Required initially/when changes occur and recommended every 3 years			
26	Slips / Trips / Falls Prevention	• Recommended initially and every 3 years			
27	Summer Safety (Heat Stress, Bugs and Poisonous Plants)	• Recommended initially and every 3 years			
28	Traffic Control Training	• Recommended initially and every 3 years			
29	Transporting Construction Equipment	• Recommended initially and every 3 years			
30	Truck, Loader, & Carry deck Training	• Recommended initially and every 3 years			
31	Vehicle Pre-Trip Training	• Recommended initially and every 3 years			

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS**Tier 5 - Required Training Every 5 Years**

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
1	Diversity Training	• Required initially and every 5 year (annually for management)			
2	Sexual Harassment	• Required initially and every 5 year (annually for management)			

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS

Equipment Specific Training

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
1	Aerial Lift Training	• Recommended initially and every 3 years			
2	Agricultural Tractor Training				
3	Articulating Boom Crane with Winch	• Recommended initially and every 3 years			
4	Asphalt Paver Training				
5	Auger Truck Training				
6	Broom / Sweeper Training				
7	Bucket Truck Training	• Recommended initially and every 3 years			
8	Bulldozer Training				
9	Chain Saw Safety	• Required initially and every 3 years			
10	Chip Spreader Training				
11	Dump Truck Training				
12	Equipment & Machinery Best Practices				
13	Equipment Inspection Training				
14	Equipment Maintenance Training				
15	Equipment Operation Training				
16	Excavator Training, Rubber Tire Type				
17	Excavator Training, Track Type				
18	Force Controls				

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS

Equipment Specific Training

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
19	Forklift Training (Powered Industrial Truck)	• Required initially and every 3 years	• Operator training • Equipment inspections	29 CFR Part 1910.178	SPS 332.50
20	Front-End Loader Training				
21	Generator / Compressor Training				
22	Hand Signals - Equipment Operation	• Recommended initially and every 3 years			
23	Lawn Mower Training				
24	Lowboy / Trailer Training				
25	Motor Grader Training				
26	Mower Training (Bat-wing, Side-mount, Rear-mount)				
27	Mulcher / Seeder Training				
28	Pavement Marking Centerliner Training				
29	Pavement Router / Joint Cleaner Training				
30	Pneumatic Roller Training				
31	Powered Mowers				
32	Pulverizer / Reclaimer Training				
33	Roller Training, Vibratory Compactor				
34	Scraper Training				
35	Shouldering Machine Training				
36	Skid Loader Training	• Required initially/when changes occur and recommended every 3 years			

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS

Equipment Specific Training

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
37	Snow Blower Training				
38	Snow Plow Truck Training				
39	Tailgate Auger Training				
40	Tar Kettle Training				
41	Tractor Backhoe / Loader Training				
42	Truck, Loader, & Carry deck Training	• Recommended initially and every 3 years			
43	Vehicle Pre-Trip Training	• Recommended initially and every 3 years			
44	Wood Chipper Training				

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS

Other Miscellaneous Training

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
1	Brine Mixing or Usage				
2	Cable Barrier Training				
3	CDL & OWI				
4	Culvert Installation & Inspections				
5	Diggers Hotline Training				
6	DOT Training				
7	Drug & Alcohol Awareness				
8	Employee Assistance Program				
9	Flammable & Combustible Liquids Safety & Storage				
10	Fuel Island Training Class A/B/C Certifications				ATCP 93 Chapter VIII
11	General Information with Commissioner				
12	Hazardous Waste Operations and Emergency Response - (HAZWOPER)		• Program dependent	29 CFR Part 1910.12	
13	Highway Construction & Paving				
14	Housekeeping - Materials & Storage				
15	Lead For Staff with Management Responsibilities				
16	Load Securement / Tie Down				
17	Machine Guarding				
18	Mechanics - Maintenance Training				

SAFETY TRAININGS FOR COUNTY HIGHWAY & PUBLIC WORKS DEPARTMENTS

Other Miscellaneous Training

#	TRAINING TYPE	TRAINING FREQUENCY	REQUIREMENT	CFR	STATE REGULATIONS
19	Mechanics - Vehicle Diagnostics				
20	Noxious Weed Identification & Control				
21	Overhead & Gantry Cranes				
22	Pre-Wet Maintenance				
23	Safety Leadership Series				
24	Salt Calibration and Scale Usage				
25	Scaffolding		• Hoisting machine, cable, and equipment inspection		
26	Vehicle Backing Training				
27	Winter Maintenance Training				