Managing Snow and Ice Control Operations

October 3–4, 2011
Allentown, Pennsylvania

October 17–18, 2011
Madison, Wisconsin

Our 36th annual course...updated to benefit public works officials, engineers, superintendents and facility managers

- Anti-icing
- Effective use of chemicals and abrasives
- Winter storm operations
- Liability and safety
- Minimizing environmental impacts
- Improving performance while reducing costs
Managing Snow and Ice Control Operations  
October 3–4, 2011 in Allentown, Pennsylvania  
October 17–18, 2011 in Madison, Wisconsin

Critical Winter Maintenance Decisions
Effectively managing your snow and ice control operations requires knowledge in many areas. Extensive planning, training and preparation are essential. During winter storms, supervisors must be prepared to make critical decisions quickly with limited information.

This intensive two-day course is your opportunity to:
• Learn about effective snow and ice management techniques
• Discuss the appropriate use of chemicals and abrasives
• Discover safety benefits of anti-icing
• Understand weather forecasting tools
• Learn about innovative winter maintenance equipment
• Share experiences with industry leaders
• Benefit from examples of snow and ice control operations for highways, urban streets, parking lots, and sidewalks and facilities

Effective Procedures, Latest Technologies
The experienced course instructors will provide you with the knowledge to:
• Use weather forecasting tools effectively
• Upgrade equipment and technology
• Implement snow plans and policies
• Manage liability
• Utilize alternative chemicals
• Improve effectiveness of winter operations

Know What to Do in Storm Situations
This course offers you practical management approaches to help you respond to storm situations affecting urban and rural roadways, sidewalks, and facilities. You will:
• Learn how to establish plans and policies, select equipment, and time the use of chemicals and abrasives
• Discuss examples of effective anti-icing applications
• Learn about liability and ways to manage risk
You’ll hear from experienced managers and field operations staff who will highlight their use of innovative techniques, planning tools, and technology.

Past Participants Say...

“WE NEEDED TO MAKE CHANGES, AND THIS COURSE GAVE ME THE TOOLS I NEED!”

“I LEARNED A GREAT DEAL. IT WAS WELL WORTH THE COST.”

“INCREDIBLY INFORMATIVE; I GOT MORE THAN I EXPECTED.”

“HELPED CLEAR UP A LOT OF MISINFORMATION.”

“EXCELLENT IDEAS TO TAKE HOME AND START ASAP.”

“GOOD COURSE FOR VETERANS AND NEWCOMERS.”

“OPENED MY EYES TO NEW TECHNIQUES.”

“EVERYTHING PRESENTED WAS WELL WORTH THE TRIP.”

“TIME SPENT WILL DEFINITELY BENEFIT MY ORGANIZATION AND THE COMMUNITY THAT I SERVE.”

“PROVIDED VALUABLE TRAINING AND A THINK-OUTSIDE-THE-BOX PHILOSOPHY.”

“I’VE GOT A LOT OF USEFUL INFO TO TAKE HOME, NEW TECHNIQUES TO TRY, AND SOME THINGS THAT I WILL HAVE TO SELL MY BOSS ON!”

Attend and Benefit
Public works officials, engineers, superintendents, facility managers, contractors, and others with responsibilities for winter maintenance will benefit from this course.

We encourage group discussion. Come prepared to share your experiences and problem situations. For your use during and after the course, you will receive a valuable course notebook with materials to assist you back on the job.

Call or go online to enroll, and discover why this course, updated annually, is so popular with winter maintenance managers year after year!

A Sampling of Previously Enrolled Organizations
Air Products and Chemicals, Inc., PA
Bangor Public Works, ME
Borough of West Chester, PA
Bucks County, PA
City of Baltimore, MD
City of Cambridge, MA
City of Cedar Rapids, IA
City of Fargo, ND
City of Kokomo, IN
City of Milwaukee, WI
City of Roseville, MI
City of Syracuse, NY
City of Westerville, OH
College of William & Mary, VA
Duke’s Landscape Management, Inc., NJ
DuPage County DOT, IL
E.I. du Pont Company, DE
Frederick County, MD
Hennepin County DOT, MN
Illinois DOT
Indiana DOT
Lake Mohawk Country Club, NJ
Lincoln Public Schools, NE
Los Alamos National Laboratory
Luther Midelfort Hospital, WI
Metro Washington Airport, VA
Middletown City Schools, NY
Minnesota DOT
National Park Service, NY
New Jersey Turnpike Authority
New York City Parks Department, NY
Ocean County, NJ
Pioneer Hi-Bred, IA
Port Authority of NY & NJ
Quality Landscaping, WI
R&R Realty Group, IA
Rite Aid Corporation, PA
Riverside Snow and Ice Services, MA
South Dakota DOT
Suffolk County Community College, NY
The Belt Railway Company, IL
The College of William & Mary, VA
Town of Arlington, MA
Town of Vinton, VA
U.S. Army
University of Iowa
Vermont Agency of Transportation
Villanova University, PA
West Goshen Township, PA
Wilmington Parking Authority, DE

ENROLL ONLINE TODAY! Or visit our Web site
Course Outline

Monday

7:30  Registration
In Allentown:
Bear Creek Mountain Resort & Conference Center
101 Doe Mountain Lane
Macungie, PA
In Madison:
The Madison Concourse Hotel
One West Dayton Street
Madison, WI

8:00  Welcome and Introduction
Benjamin J. Jordan, PE
Program Director
University of Wisconsin–Madison

8:15  Winter Storms
Michael Adams
Weather Systems Consultant
Wisconsin Department of Transportation
Madison, Wisconsin

9:00  Using Technology for Winter Operations
•  Contract forecast services
•  Road Weather Information Systems (RWIS)
•  Mobile temperature sensors
•  Automatic Vehicle Location (AVL)
•  Maintenance Decision Support System (MDSS)
Michael Adams

10:15  Break

10:30  Snow and Ice Chemicals
Benjamin J. Jordan, PE

10:35  Snow and Ice Chemicals
•  Types of snow and ice conditions on pavement
•  Selecting materials and application methods to match conditions
•  Using chemicals as a bond breaker
•  Salt properties and performance
•  Properties and performance of alternative chemicals
•  Abrasives
•  Salt/abrasive blends
Benjamin J. Jordan, PE

11:30  Lunch

12:00  Lunch

1:00  Winter Maintenance Liability
•  Liability concerns in winter operations
•  Minimizing potential for liability
•  Case examples
In Madison:
Raymond J. Pollen
Crivello Carlson, S.C.
Milwaukee, Wisconsin
In Allentown:
William John Kearns, Jr.
Kearns, Reale & Kearns
Willingboro, New Jersey

2:00  Break

2:15  Winter Maintenance Management
•  Snow plans and operational guidelines
•  Training
•  Crew scheduling
•  Public relations
•  Planning and managing routes
•  Prioritizing operations
•  Anti-icing, deicing, and plowing policies
James J. “Jim” Dean
Superintendent of Highways
Town of Orangetown
Orangeburg, New York

3:15  Managing Winter Maintenance Environmental Impacts
•  Impacts on water resources
•  Impacts on vegetation
•  Minimizing environmental impacts
•  Salt storage best practices
Benjamin J. Jordan, PE

4:00  Adjournment

Tuesday

8:00  Street and Highway Winter Maintenance Operations
•  Implementing policies and procedures
•  Application rates
•  Equipment
•  Anti-icing
•  Field experience
Matt Dolan
Public Works Operations Specialist
City of West Des Moines
West Des Moines, Iowa

9:00  Break

9:45  Blending Salt Brine and Other Chemicals for Prewetting and Anti-Icing
•  Blends and blend performance
•  Blending equipment
•  Field experience with blends
Matt Dolan

10:30  Specifying, Preparing, and Maintaining a Snow and Ice Fleet
•  Specifying winter maintenance trucks and equipment
•  Staffing and facilities for maintaining the winter fleet
•  Pre-season preparation of trucks and equipment
•  Fleet maintenance and repair during the storm and post storm
•  Good practices and lessons learned
Jeffrey Tews, CFPF
Fleet Operations Manager,
DPW-Fleet Services Section
City of Milwaukee, WI

12:00  Lunch

1:00  Buildings and Grounds Winter Maintenance
•  Planning and policies for effective winter grounds maintenance
•  Mobilizing personnel and equipment
•  Sidewalks and steps
•  Roads, parking lots, and ramps
•  New equipment and techniques

In Madison:
Ellen Agnew
Grounds Superintendent
Physical Plant
University of Wisconsin–Madison
In Allentown:
William John Kearns, Jr.
Kearns, Reale & Kearns
Willingboro, New Jersey

2:30  Break

2:45  Winter Maintenance from a Contractor’s Perspective
•  Coordination of winter operations
•  Equipment selection/productivity
•  Use of liquids for anti-icing and deicing
•  Effective winter services contracts

3:45  Winter Maintenance Environmental Impacts
•  Impacts on water resources
•  Impacts on vegetation
•  Minimizing environmental impacts
•  Salt storage best practices
Benjamin J. Jordan, PE

4:15  Managing Winter Maintenance Environmental Impacts
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•  Impacts on vegetation
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•  Salt storage best practices
Benjamin J. Jordan, PE

5:00  Adjournment

Wednesday

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•  Implementing policies and procedures
•  Application rates
•  Equipment
•  Anti-icing
•  Field experience
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Public Works Operations Specialist
City of West Des Moines
West Des Moines, Iowa

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5:00  Adjournment

Earn Continuing Education Credit

By participating in this course, you can earn 12 Professional Development Hours (PDHs) or 1.2 Continuing Education Units (CEUs).
**Bring UW–Madison Expertise to Your Organization!**

On-site training can equip your employees in skill areas critical to your success. We can:

- Assess training needs and design learning programs tailored to your situation
- Deliver course content, customized for your needs, in person or online
- Empower your employees to quickly translate practical knowledge into productive work

We have reserved a block of sleeping rooms ($115.95 single or double, $140.95 suites) for course participants at the Bear Creek Mountain Resort & Conference Center. To reserve a room, call 610-641-7101 and indicate that you will be attending this course under group code 172676. Room requests made later than September 16 will be subject to availability. Reservations will require an advance deposit equaling one night stay at the time of booking. The advance deposit is fully refundable up to seven days prior to your arrival date.

Bear Creek Mountain Resort & Conference Center provides complimentary shuttle service from the Lehigh Valley International Airport (ABE); 24-hour advance reservation is required for shuttle service. Other air travel options include Philadelphia International Airport (PHL), less than 70 miles away via Interstate 476, and Newark Liberty International Airport (EWR), less than 90 miles away via Interstate 78.

**In Madison:** The Madison Concourse Hotel and Governor’s Club, One West Dayton Street, Madison, WI

We have reserved a block of sleeping rooms (rates starting at $115, including shuttle) for course participants at the Madison Concourse Hotel and Governor’s Club. To reserve a room, call 800-356-8293 or 608-257-6000 and indicate that you will be attending this course under group code 172676. Room requests made later than September 25 will be subject to availability. Your enrollment confirmation will include other hotel/motel information.

**Need to Know More?**

Call toll free 800-462-0876 and ask for

**Program Director:** Benjamin J. Jordan, PE
  jordan@epd.engr.wisc.edu

**Program Associate:** Edie Vitale
  custserv@epd.engr.wisc.edu

**General Information**

**Fee Covers** Notebook, course materials, break refreshments, lunches, and certificate.

**Cancellation** If you cannot attend, please notify us 7 or more days before the course start date, and we will refund your fee. Cancellations received less than 7 days before the course date and no-shows are subject to a $150 administrative fee. You may enroll a substitute at any time before the course starts.

**Note** We reserve the right to alter course schedule and substitute speakers when necessary.

**Locations and Accommodations**

**In Allentown:** The Bear Creek Mountain Resort & Conference Center, 101 Doe Mountain Lane, Macungie, PA

We have reserved a block of sleeping rooms ($115.95 single or double, $140.95 suites) for course participants at the Bear Creek Mountain Resort & Conference Center. To reserve a room, call 610-641-7101 and indicate that you will be attending this course under group code University of Wisconsin. Room requests made later than September 16 will be subject to availability. All reservations will require an advance deposit equaling one night stay at the time of booking. The advance deposit is fully refundable up to seven days prior to your arrival date.

**In Madison:** The Madison Concourse Hotel and Governor’s Club, One West Dayton Street, Madison, WI

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**Madison Concourse Hotel and Governor’s Club provides complimentary shuttle service from the Dane County Regional Airport (MSN). Other air travel options include Milwaukee General Mitchell International Airport (MKE), less than 90 miles away via Interstate 94.**