Storm Report Instructions (updated 12/10/2019)

For any questions or concerns with the storm reporting system please contact:

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Please take your time in filling out and compiling information for the storm reports to insure the Department gets as accurate data as possible. The week end for the storm reports is Thursday at Midnight, and reports are due for that week the following Wednesday to allow time to make sure all information is gathered and entered correctly.

A report should be entered every week, even if there was no activity. Please use the No Activity tab to establish there were no events/incidents that week.

Each Winter Storm/Incident/Anti-Icing event should be logged separately according to the guidelines below:

Here is the menu of options you will see once you enter the Winter Report System:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter Storm</td>
<td>Incident</td>
</tr>
<tr>
<td>Anti-Icing</td>
<td>No Activity</td>
</tr>
<tr>
<td>History</td>
<td></td>
</tr>
</tbody>
</table>

**Winter Storm:** This will be filled out when there is a freezing precipitation event that causes forces to go out and clear the road way to make it safe for the traveling public. Please see step by step instructions below for filling out a Winter Storm Report starting on page 2.

- It is possible to have more than one storm/incident in a single day. For this to happen, precipitation must have ceased for at least four hours before starting again. When precipitation stops for less than four hours, it will be considered the same event. But when it stops for four or more hours, it will be considered two events, even when crews are still cleaning up after the first event. (SEE FIGURE 1.1 below for examples)
• When an incident happens simultaneously with a storm, include all the labor, equipment, and materials in the storm.

• No maintenance that is conducted, by agreement, outside the traveled way should be included on the storm reports. This includes parking lanes, curb and gutter, sidewalks, sidewalks on bridges, and drainage facilities.

• Cleanup immediately after a storm, during the same working period, shall be included in the storm report.

• Storms that happen simultaneously in different locations of a county shall be combined into one storm.

**Incident:** This report is to be filled out when forces are required, that isn’t done in the same shift of a winter storm. If clean-up of a storm is done the following day after a storm ends, this would require an incident report to be filled out.

  • Options to choose: Drifting, Blowing Snow, Frost, Bridge Decks, Clean-up of storm the following day, Ice, Lake Effect.

**Anti-icing:** This is when liquids (i.e. NaCl brine) are sprayed on the roadway out ahead of the storm to keep the snow/ice from bonding with the pavement so can plow it off quickly and with less effort.

  • Each anti-icing operation shall be logged and recorded on a separate anti-icing form.
  • Anti-icing can be conducted concurrently with both storms and incidents and should be kept separate.

**No Activity:** This tab should be used if there were no storms/incidents/anti-icing activities. Just need to select the week you are in and confirm there was no activity that week.

Please see Figure 1.1 on next page for examples of when separate Winter Storm/Incidents/Anti-icing reports should be filled out.

***Also see below for step by step instructions for using the Wistransportal system for Winter Storm Reporting on State Highways along with a WINTER SCENARIO EXAMPLE AT THE END.***
Logging in to Wistransportal System for Storm Report:
- Go to the website: http://transportal.cee.wisc.edu/
- Click on Storm Report on right hand side under quick links
- If you haven’t already registered on site, click on User Account Request Form and fill out relevant information
- Once this is completed, you will have the ability to enter storm reports for a designated county(s)

Entering a Winter Storm Report
- Click on Storm Report => Winter Storm Report System
- Select County from Drop down menu, click ok.
• Select the **Winter Storm** Tab
• Winter Storm Report Form will appear. This will need to be filled out, see instructions/explanations below

**Is this a resubmission?**

Click this check box if you are re-submitting a report. This will not be selected if is a brand-new report. **Please put in comments why you are resubmitting the report.**

**Weather:**

**Storm start:** Enter the date and approximate time that the precipitation started anywhere in the county to the nearest half hour. Use whatever information is available (State Patrol, sheriff, patrols) to get the best estimate of when the precipitation began. The **rule of thumb** to remember is that regardless of what operation is commencing the **Storm Start** time is the time the snow or freezing precipitation began falling.

Example: If it is **raining** and it changes to freezing precipitation, the Storm Start time is when the precipitation begins to freeze, **not** when the rain started. We typically do not send out forces for rain events.

**Storm end:** Similar to storm start. Enter the date and approximate time the snow or freezing precipitation ended in the county to the nearest half hour.

**Pavement temperature in degrees – Fahrenheit:** *(at time crew went out and then came in).* Enter the approximate pavement temperature as determined from the nearest RWIS site or a vehicle-mounted infrared device, at the time the de-icing/anti-icing crew went out/came in for a storm, incident, or anti-icing.

**Air temperature in degrees – Fahrenheit:** *(at time crew went out and then came in).* Enter the approximate air temperature as determined from the nearest RWIS site or a vehicle-mounted infrared device, at the time the de-icing crew went out/came in for a storm.

**Type of precipitation:** Check each box that applies. Drifting is isolated, blowing snow is widespread.

**Average Snow Amount:** Enter a ballpark estimate of the average snow amount that you had to react to, rounded to the nearest tenth of an inch. By definition of a Storm there should be something falling from the sky. With that said, the **Average Snow Amount** should never be ZERO. If you had a non-measurable event such as **Sleet**, **Drizzle**, or **Freezing Rain** enter **0.1** as the average.
MDSS Forecast accuracy: If MDSS was not used, please select “Not used” in the drop-down box. If it was used, select how accurate the forecast was, then another menu will populate to select how accurate the treatment recommendation was.

**Performance:**

Pavement bare/wet: Enter the date and approximate time that “ALL of your 18-hour or 24-hour highways depending which group you’re assigned to. (See list below) were in bare/wet condition, to the nearest half hour. Check the “Never bare/wet” box if the roadways in your assigned category were not bare/wet prior to the start of the next storm. Check “Always Bare/wet” if the roadways were bare/wet the entire time your crews were out. If your highways are primarily Category 3-5 according to Guideline 6-15-5 consider them bare/wet when they meet the descriptions in this guideline.

- **Counties to report bare/wet conditions for only their 24-hour highways:**
  Brown, Chippewa, Columbia, Dane, Dodge, Door, Dunn, Eau Claire, Fond du Lac, Grant, Iowa, Jackson, Jefferson, Juneau, Kenosha, La Crosse, Manitowoc, Marathon, Marquette, Milwaukee, Monroe, Oconto, Outagamie, Ozaukee, Portage, Racine, Rock, Sauk, Shawano, Sheboygan, St. Croix, Vernon, Walworth, Washington, Waukesha, Waupaca, Waushara, and Winnebago

- **Counties to report bare/wet conditions for only their 18-hour highways:**

**Equipment:**

Total number of de-icing units used: Enter the total number of different deicing units/pieces of equipment used to fight an event/storm.

If an operator goes out in one truck in the morning and it breaks down so that he goes out in another truck in the afternoon, then this counts as 1 unit. If an operator goes out in a plow in the morning and a grader in the afternoon, then this counts as 2 units.

Total de-icing unit hours: Enter the hours, rounded to the nearest whole number, of the units that were used after the snow or freezing precipitation had begun falling.

**Labor:**

Crew out: Enter the date and time the first patrolperson went out to react to a freezing precipitation event, address an incident, or anti-icing operation, to the nearest half hour.
Crew in: Enter the date and time that the last patrolperson returned, to the nearest half hour.

Total regular de-icing hours: Enter the regular hours, rounded to the nearest whole number, for all operators used for de-icing during a storm.

Total overtime de-icing hours: Enter the overtime hours, rounded to the nearest whole number, for all operators used for de-icing during a storm.

Materials:

Total salt used (in tons): Enter the total salt used by all patrol sections in the county, rounded to the nearest ton.

Total ClearLane used (in ton): Enter total used (tons) in entire county, if any at all

Total ThawRox used (in ton): Enter total used (tons) in entire county, if any at all

Total sand used (in cubic yards): Enter the total sand used by all patrol sections in the county, rounded to the nearest cubic yard.

Total dry calcium chloride (in tons): Enter the total calcium chloride used by all patrol sections in the county, rounded to the nearest ton.

Salt prewetting agents (gal): Select the de-icing agent used to prewet salt from the pull-down box. Enter the appropriate amount used in gallons.

Example: If you were using an 80/20 mix of salt brine/calcium chloride mixture to pre-wet rock salt coming off the truck and used 2,000 gallons total along with dry rock salt (entered in the total salt used) The selection would look like this for the liquids used:

Salt prewetting agents: (enter values for all agents used)

| Agent 1: Salt Brine (liquid NaCl) | 1600 gal. |
| Agent 2: Calcium Chloride (CaCl2) | 400 gal. |
| Agent 3: None | |
| Agent 4: None | |

Again, this tab is used for the application of using liquid along with rock salt on a given route.

Sand prewetting agents (gal): Select the de-icing agent used to prewet sand from the pull-down box. Enter the appropriate amount used in gallons.
DLA (Direct Liquid Application) Agents: Select the de-icing agent used from the pull-down box. Enter the appropriate amount used in gallons.

**This is to be used for counties using mostly liquid routes. Which means only brine/liquids are being used to de-ice the pavement (No rock salt being used, if salt is being used it needs to be entered in the Salt Prewetting Agents)**

Example: On a Direct Liquid Route only there was 3,000 gallons of liquid used. The mixture used was an 80/20 mixture of salt brine and calcium chloride brine. The selection would look like below:

<table>
<thead>
<tr>
<th>DLA agents (enter values for all agents used)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent 1: Sodium chloride brine</td>
</tr>
<tr>
<td>Agent 2: Calcium chloride brine or blend</td>
</tr>
<tr>
<td>Agent 3: None</td>
</tr>
<tr>
<td>Agent 4: None</td>
</tr>
</tbody>
</table>

**AGAIN, this section is only to be used for Liquid only/Liquid Mostly routes.**

Entering a Winter Incident Report
- This report is to be filled out when a winter incident occurs (example: A winter storm ended over a day ago, but high winds caused drifting snow on the state highway and forces were sent out to clear the road way. All relevant information must be entered in this form.) All options to choose from: drifting snow, blowing snow, frost, bridge decks, clean-up, ice, lake effect.
- The only selection that is different the Winter Storm Report form is the Type of incident(s) that caused forces need.
- Use the incident report tab in the main menu after you select your county

Entering an Anti-Icing Report
- This report is to be filled out when forces are sent out ahead of an incoming storm to put down liquids to help keep the snow from bonding with the pavement.
- Use the anti-icing tab in the main menu after you select your county.

Entering a No Activity Report:
- This report is to be used if there were no storms/incidents/anti-icing activities during a given week
- Just need to select the week that no activity took place and hit confirm
Example of a Winter Storm causing all (3) forms to be filled out:

Scenario: It is Wednesday December 4th and a forecasted snow storm was to come through the county the following day early morning of Thursday December 5th, so forces were sent out to anti-ice. The storm did in fact come, starting at 3:00 AM December 5th, causing forces to be called in and went out at 4:00 AM, (9) trucks with pre-wet capabilities and (1) truck on a Direct Liquid Application route only were dispatched out. The storm then stopped at 12:00 PM with a total of 6" of snow, the pavement in the county was declared bare/wet at 3:00 PM and all trucks were returned to the shop by 3:30 PM. The day following the storm at 8:00 AM December 6th a report of drifting snow came in due to high winds. To fight this action in the area(s) of reports (4) plows were dispatched at 8:30 AM to clear the road way, they then returned at 1:30 PM.

Anti-Icing Information:
- (3) Anti-icing trucks were sent out at 8:00 am and returned at 1:00 PM with a pavement temperature of 25°F. All hours were regular time, totaling 15 hours.
- In total 4,500 gallons of salt brine was used
- MDSS was used to forecast and once the storm was complete it was a good forecast, however the treatment recommendation was not used

Winter Storm Information:
- The storm started at 3:00 AM and ended at 12:00 PM totaling 6” of dry snow
- The crews left at 4:00 AM, Pave Temp: 15°F, Air Temp 22°F
- In all (10) trucks were used to clear the snow, totaling 115 equipment hours
  - In which 80 hours were regular time and 35 hours of overtime
- In total the (9) prewetting trucks used 400 tons of rock salt and 8,000 gallons of salt brine. The (1) Direct liquid route truck used 2,500 gallons of 90/10 sodium and calcium blend.
- Bare/wet declared at 3:00 PM
- The crews returned at 3:30 PM, Pave Temp: 20°F, Air Temp 26°F
- MDSS forecast was used and was good, so used the treatment recommendation which was good as well

Winter Incident Information
- Drifting snow caused (4) plows to be sent out at 8:30 AM and returned at 1:30 PM, the pavement temp was 28°F
- The (4) plows totaled up to 20 hours, all on regular time.
- 50 tons of salt and 750 gallons of salt brine for prewetting was used

**Below are examples of the filled-out reports from the above information taken in for the Anti-icing, winter storm, and winter incidents that occurred.**
### Filled out Anti-Icing Report:

<table>
<thead>
<tr>
<th>Is this a resubmission?</th>
<th>☐</th>
</tr>
</thead>
</table>

**Weather:**
- Temperature: 25°F
- Type of precipitation: Wet Snow

**MDSS:**
- Rate the accuracy of the MDSS weather forecast: Good
- Rate the accuracy of the MDSS treatment recommendation during the event: Not Used

**Equipment:**
- Total number of anti-icing units used: 3
- Total anti-icing unit hours: 15

**Labor:**
- Crew out: Date: 12/04/2019, Time: 08:00
- Crew in: Date: 12/04/2019, Time: 13:00
- Total regular anti-icing hours: 15
- Total overtime anti-icing hours: 0

**Materials:**
- Anti-icing agents: Salt Brine (liquid NaCl), None

**Comments:**
- Anti-iced bridges and STS XX lane highway in anticipation of snow storm coming the next day.

[Continue to Confirmation Page]
Filled out Winter Storm Report (1/2):

Is this a resubmission?  

<table>
<thead>
<tr>
<th>Weather:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date:</strong> 01/25/2019</td>
</tr>
<tr>
<td><strong>Time:</strong> 08:00</td>
</tr>
<tr>
<td><strong>Storm start</strong></td>
</tr>
<tr>
<td><strong>Date:</strong> 01/25/2019</td>
</tr>
<tr>
<td><strong>Time:</strong> 12:00</td>
</tr>
<tr>
<td><strong>Storm end</strong></td>
</tr>
<tr>
<td><strong>Pavement temperature in degrees - Fahrenheit (at crew out time):</strong></td>
</tr>
<tr>
<td>15</td>
</tr>
<tr>
<td><strong>Air temperature in degrees - Fahrenheit (at crew out time):</strong></td>
</tr>
<tr>
<td>22</td>
</tr>
<tr>
<td><strong>Pavement temperature in degrees - Fahrenheit (at crew in time):</strong></td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td><strong>Air temperature in degrees - Fahrenheit (at crew in time):</strong></td>
</tr>
<tr>
<td>25</td>
</tr>
<tr>
<td><strong>Type of precipitation (check all that apply):</strong></td>
</tr>
<tr>
<td>☐ Wet Snow  ☐ Dry Snow  ☐ Freezing Rain  ☐ Sleet  ☐ Lake Effect</td>
</tr>
<tr>
<td><strong>Average snow amount (in inches):</strong></td>
</tr>
<tr>
<td>6</td>
</tr>
</tbody>
</table>

| MDSS: |
| Rate the accuracy of the MDSS weather forecast:  Good  |
| Rate the accuracy of the MDSS treatment recommendation during the event:  Good  |

| Performance: |
| **Pavement bare/wet at** |
| **Date:** 01/25/2019  |
| **Time:** 15:00  |
| ☐ Never bare/wet  |
| ☐ Always bare/wet  |

| Equipment: |
| **Total number of de-icing units used:** |
| 15  |
| **Total de-icing unit hours:** |
| 115  |

| Labor: |
| **Crew out** |
| **Date:** 01/25/2019  |
| **Time:** 04:00  |
|**Crew in** |
| **Date:** 01/25/2019  |
| **Time:** 15:30  |
| **Total regular de-icing hours:** |
| 80  |
| **Total overtime de-icing hours:** |
| 33  |
Filled out Winter Storm Report (2/2):

<table>
<thead>
<tr>
<th>Materials:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total salt used (in tons)</td>
<td>40.0</td>
</tr>
<tr>
<td>Total ClearLane used (in tons)</td>
<td>0</td>
</tr>
<tr>
<td>Total ThawMix used (in tons)</td>
<td>0</td>
</tr>
<tr>
<td>Total sand used (cubic yds)</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Salt prewetting agents:** (enter values for all agents used)

- Agent 1: Salt Brine (liquid NaCl) | √ | 8000 gal.
- Agent 2: None | √ | gal.
- Agent 3: None | √ | gal.
- Agent 4: None | √ | gal.

**Sand prewetting agents:** (enter values for all agents used)

- Agent 1: None | √ | gal.
- Agent 2: None | √ | gal.
- Agent 3: None | √ | gal.
- Agent 4: None | √ | gal.

**DLA agents:** (enter values for all agents used)

| Agent 1: Sodium chloride brine | √ | 2250 gal. |
| Agent 2: Calcium chloride brine or blend | √ | 250 gal. |
| Agent 3: None | √ | gal. |
| Agent 4: None | √ | gal. |

**Comments:**

6" of dry snow spread across the county pretty equally.

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Continue to Confirmation Page >>
**Filled out Winter Incident Report:**

<table>
<thead>
<tr>
<th>It is a resubmission?</th>
<th>☐</th>
</tr>
</thead>
</table>

**Weather:**

- Pavement temperature in degrees Fahrenheit: 28
- Type of incident(s): Drifting, Blowing Snow

**Equipment:**

- Total number of de-icing units used: 4
- Total de-icing unit hours: 20

**Labor:**

- Crew out: Date: 12/06/2019, Time: 06:00
- Crew in: Date: 12/06/2019, Time: 12:00

**Materials:**

- Total salt used (in tons): 66
- Total ClearLane used (in tons): 0
- Total ThawRox used (in tons): 0
- Total sand used (in cubic yards): 0
- Total dry calcium chloride used (in tons): 0.5

**Salt prewetting agents (enter values for all agents used):**

- Agent 1: Salt Brine (Liquid NaCl) ☑ 750 gal.
- Agent 2: None ☐
- Agent 3: None ☐
- Agent 4: None ☐

**Sand prewetting agents (enter values for all agents used):**

- Agent 1: None ☐
- Agent 2: None ☐
- Agent 3: None ☐
- Agent 4: None ☐

**DLA agents (enter values for all agents used):**

- Agent 1: None ☐
- Agent 2: None ☐
- Agent 3: None ☐
- Agent 4: None ☐

**Comments:**

Some drifting and drifting snow on STH X & Y.