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16. ABSTRACT <p>The Fixed Anti-icing Tracking System is a stand alone, anti-icing liquid chemical spray system normally mounted on preselected highway bridges. These systems are designed to help prevent a strong bond of snow and/or ice from developing on a bridge deck. This, in turn, aids in reducing traffic accidents related to snow and/or ice events by producing safer highway driving conditions for the public. This is achieved by the application of anti-icing liquids onto a pavement prior to and even during a snow and/or ice event. As motorists drive across the treated bridges, the chemical is "tracked" onto, across and off the end of the bridge. While performing snow removal and ice control obligations, maintenance managers and personnel are potentially provided with more options when possessing this kind of technology. Furthermore, the anti-icing chemicals used by this system are less corrosive than traditional methods and cause less damage to bridges, roads, equipment, cars, etc. Fixed anti-icing tracking systems are fabricated to be low maintenance, affordable and user friendly. The system can be connected to any Windows-based computer, and monitored for humidity, precipitation accumulation, dew point, wet or dry pavements, road temperature and if freezing is developing along with other important system information.</p> <p>In November 2001, the Oklahoma Department of Transportation (ODOT) placed a fixed anti-icing tracking system consisting of four (4) on-site stations which treat six (6) preselected bridges on US-412 in Division VI, Woodward County, Oklahoma.</p> <p>The fixed anti-icing tracking system has been evaluated since it's inception. Evaluation activity includes the monitoring and documentation of system construction, data collection of system operation by way of monitoring and documentation prior to, during, and subsequent to inclement winter weather conditions. Other surveys consist of compiling and processing data regarding system capability, capacity, and effectiveness.</p> <p>In the two (2) years since the placement of this system, road and traveling conditions during snow and/or ice events at this location have improved. The main problem encountered was the traveling public not driving in the inside lane to produce the "tracking" effect in that lane. However, the splashing of the anti-icing chemical and air turbulence from vehicles in the outside lane did provide some coverage to the inside lane. Upgrades and inventive concepts of this system are constantly in progress and although some minor maintenance may be needed on occasion, this system has been and is performing well.</p>			
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