Road snow melting technique by using new heat source

[Point]

Heat accumulation technique has been introduced into several road snow melting facilities that use new heat source such as unused energy on a trial basis in recent years. However, these attempts are just individual examples that focus on a function for adjusting the differences in heat supply and demand of heat accumulation tank technique, and these attempts have not yet reached the sufficient application of past record of heat accumulation technique cultivated by air conditioning facility.

In this study, heat accumulation technique that was cultivated in air conditioning facility was transferred to road snow melting facility, and efficient operation of heat for effectively applying heat accumulation technique in road snow melting facility was studied, by the review of feasibility study of unused energy as heat source and introduction effect of heat accumulation technique in road snow melting facility, for the purpose of reducing total cost that was an issue of non-watering road snow melting facility.

As a result, applicability of unused energy for snow melting was enhanced by heat accumulation technique, and it was revealed that reduction of total cost was possible depending on snowfall characteristics. Furthermore, system configuration and control method were suggested, by which efficient heat operation was possible for using heat accumulation technique more effectively.

Keywords: road snow melting, unused energy, heat accumulation technique