

The accident of the limited express train *Inaho No. 14* on the Uetsu Line

—Immediate and future measures—

On December 25, 2005, a derailment of the limited express train *Inaho No.14* on the Uetsu Line between the Sagoshi and Kita-Amarume stations caused the deaths of five passengers, and injured 30. We pray for the souls of those who lost their lives, and offer our deepest apologies to the victims of the accident and their families.

The Aircraft and Railway Accidents Investigation Commission of the Ministry of Land, Infrastructure and Transport (MLIT) continues to investigate the causes of the accident, and we have also set up a commission for ascertaining the cause and examining the measures of the Uetsu Line accident, which is currently carrying out this mandate. At the time of the publication of this report, the cause of the accident remains unknown.

We resumed operations on this section of the Uetsu Line on January 19, 2006. Wind has been identified as one of the possible causes of the accident. Accordingly, when we resumed operations, we implemented the following preliminary measures at the site of the accident, and other locations where there are operating restrictions due to wind.

Measures at site of the accident

(1) Increased number of anemometers (wind meters)

In order to observe wind speeds in more detail, we have installed additional anemometers at three locations near the No.2 Mogamigawa Bridge, where the accident occurred.

(2) Slow zone

In consideration of possible rapid changes in weather conditions, we have reduced the speed of the 1.9-km section near the accident to 45 km/h.

(3) Revised restriction thresholds

We have revised the wind speeds at which operating restrictions are to be implemented, as shown in the table below.

| Restriction type | Wind speed (meters/sec.) | |
|-------------------------------------|-------------------------------------|---------------------------------|
| | Until now (general restrictions) | Revised (early restrictions) |
| Speed restriction (max. 25 km/h) | 25~30 | 20~25 |
| Operation halted | 30~ | 25~ |

(4) Installation of special warning signals

We have installed special warning signals that flash red light to inform the train driver that the wind speed has reached the threshold to stop operation.

(5) Use of meteorological information

We remain alert to weather conditions and respond to them quickly. We will also examine their application to railway operations.

(6) Construction of windbreak fences

We will construct an approximately 2.3km windbreak fence on the No.2 Mogamigawa Bridge and both of its approach embankments. As the results of past experiments, it is believed that a windbreak fence could reduce the wind pressure exerted on trains by strong winds by about 50%. We plan to complete the fence construction by the end of November 2006, before the arrival of winter. Note that once the windbreak fence is completed, we will lift the speed restriction of 45 km/h.

Measures at other locations

(1) Increased number of anemometers (wind meters)

We installed a total of 324 new anemometers on conventional and Shinkansen lines where there are operating restrictions due to wind, in order to enhance our observation capabilities.

(2) Provisional revisions to restriction thresholds

We have implemented the same revisions to restriction thresholds as the site of the accident at all locations on conventional lines where there are operating restrictions due to wind.

Note that the ordinary regulations may be reinstated in the following circumstances:

- 1) A conclusion is reached by our commission for ascertaining the cause and examining the measures of the Uetsu Line accident;
- 2) Windbreak fence installations or other physical measures are put into place;
- 3) The meteorological information utilization system is improved.

On February 1, 2006, we set up the Disaster Prevention Research Laboratory at the JR East Research & Development Center, and are also determined to improve railway safety by researching meteorological and meteorological and natural phenomena in general jointly with outside experts and research institutes.

We remain committed to identifying the cause of this accident, and taking steps to improve railway safety based on the results of a wide range of research efforts.

(as of end of September 2006)