National Board of Housing, Building and Planning

This document is a translation made by SHK of the original response in Swedish to the safety recommendation. In case of discrepancies between this translation and the Swedish original text, the Swedish text shall prevail in the interpretation of the response.

 Date
 Ref. no

 06/03/2017
 3.1.2
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 Your ref. no.

 0-8/15

Swedish Accident Investigation Authority Box 12538 102 29 Stockholm

Report on the accident involving a wind turbine in Lemnhult on 24 December 2015, Jönköping County

With reference to the report in the heading, the National Board of Housing, Building and Planning (Boverket) has, in accordance with the report's safety recommendation, informed the country's municipalities about the relevant findings of the investigation (RO 2017:01 R2). Boverket's information to the municipalities is appended

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Sweden's local planning authorities and equivalent, as per the distribution list

Information concerning wind turbines and planning and building legislation

Background

On 24 December 2015, an accident involving a wind turbine occurred in Lemnhult, Vetlanda Municipality, Jönköping County. The Swedish Accident Investigation Authority (SHK) has investigated this occurrence. The investigation indicated deficiencies in the construction of the structure.

The cause of the accident was that bolts in the first joint of the tower failed. The bolts failed due to the pre-tension force in the bolts being too low, which in turn was due to a deficient workmanship during the tower's construction.

With reference to SHK's final report (RO 2017:01), the National Board of Housing, Building and Planning (Boverket) would like to provide the following information.

The local planning authority's role in the construction of wind turbines

Wind turbines are construction works as per the Planning and Building Act (2010:900). The construction works includes both the foundations and the tower. A building permit is required to erect, relocate or substantially alter wind turbines that

- a) are taller than 20 metres above the ground surface,
- b) are located at a distance from the property line that is less than the height of the turbine above the ground,
- c) are mounted permanently on a building, or
- d) have blades with a diameter in excess of three metres.

Notification concerning wind turbines that do not require a building permit is required when they are newly built or substantially altered.

Wind turbines subject to permit and notification require starting clearance and final clearance. A technical consultation is held prior to starting clearance being issued. The local planning authority stipulates an inspection plan in the starting clearance. The inspection plan is to be adapted to the circumstances in the individual case and have the design and degree of detail that is needed to appropriately ensure compliance with the requirements concerning technical characteristics.

As a result of the accident that occurred, the National Board of Housing, Building and Planning (Boverket) would like to make local planning authorities aware that it is important to discuss during technical consultations how the developer intends to

manage the technical functional requirement load-bearing capacity, stability and durability. If deemed necessary, inspections of the construction process should be incorporated into the inspection plan. The inspections can pertain to both the foundations and the tower.

SHK's report is available from http://www.havkom.se/assets/reports/RO2017_01-Slutrapport-Lemnhult.pdf

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The county administrative boards