DEPARTMENT OF TRANSPORTATION
Federal Railroad Administration

Safety Advisory 2012–03; Buckling-Prone Conditions in Continuous Welded Rail Track

AGENCY: Federal Railroad Administration (FRA), Department of Transportation (DOT).

ACTION: Notice of Safety Advisory.

SUMMARY: FRA is issuing Safety Advisory 2012–03 to remind track owners, railroads, and their employees of the importance of complying with their continuous welded rail (CWR) plan procedures and reviewing their current internal engineering instructions that address inspecting CWR track to identify buckling-prone conditions. In an effort to heighten awareness of the potential consequences of an unexpected track buckle, particularly considering the unusually high, and prolonged, record-breaking temperatures that have affected much of the United States in recent weeks, this notice highlights a series of recent train accidents involving derailments that were preliminarily determined by the respective railroads to be caused by the rail buckling under extreme heat conditions (commonly referred to as “sun kinks” in the rail). This notice contains recommendations to track owners and railroads to ensure their employees comply with the requirements of their CWR plan procedures that address inspecting track to identify buckling-prone conditions in CWR track, particularly if the track is located on or near railroad bridges. It also recommends that track owners and railroads review current internal engineering instructions to ensure that the instructions properly identify the necessary track maintenance instructions to prevent track buckling during extreme heat conditions.

FOR FURTHER INFORMATION CONTACT:
Carlo M. Patrick, Staff Director, Rail and Infrastructure Integrity Division, Office of Railroad Safety, FRA, 1200 New Jersey Avenue SE., Washington, DC 20590, telephone (202) 493–6399; Kenneth Rusk, Staff Director, Track Division, Office of Railroad Safety, FRA, 1200 New Jersey Avenue SE., Washington, DC 20590, telephone (202) 493–6236; or Anna Nassif Winkle, Trial Attorney, Office of Chief Counsel, FRA, 1200 New Jersey Avenue SE., Washington, DC 20590, telephone (202) 493–6166.

SUPPLEMENTARY INFORMATION:

Background

The overall safety of railroad operations has improved in recent years. However, a series of recent accidents has highlighted the need for track owners, railroads, and their respective employees to review, reemphasize, and adhere to the requirements of a track owner’s CWR plan procedures and current internal engineering instructions that address inspecting track to identify buckling-prone conditions in CWR track, particularly if the track is located on or near railroad bridges.

FRA requires that a track owner comply with the contents of a CWR plan that is approved or conditionally approved under Title 49 Code of Federal Regulations (CFR) Section 213.118. See § 213.119. The plan must include procedures that prescribe when physical track inspections are to be performed. See § 213.119(g). At a minimum, these procedures are required to address inspecting track to identify buckling-prone conditions in CWR track, locations where tight or kinky rail conditions are likely to occur, locations where track work (disturbing the roadbed or ballast section and reducing the lateral or longitudinal resistance of the track) has recently been performed, and pull-apart prone conditions in CWR track, including locations where pull-apart or stripped-joint rail conditions are likely to occur. See § 213.119(g)(1).

In formulating such procedures, the track owner is required to specify when the inspections will be conducted, as well as the appropriate remedial actions to be taken when either buckling-prone or pull-apart prone conditions are found. See § 213.119(g)(2).

CWR can produce peculiar maintenance issues for the railroad industry due to the constant temperature changes that rails experience because they are exposed to the open air and radiant heat from the sun. These temperature changes in CWR can create longitudinal stresses in the rail due to the constraints along the rail in conjunction with the thermal expansion or contraction of the rail steel. During long-term exposure to extremely high temperatures, the longitudinal stress in the rail can result in an unexpected track buckle (or kink).

Recent Incidents

The following is a brief summary of the circumstances surrounding each of the recent train derailments that appear to have been heat-related incidents. Information regarding these incidents is based on FRA’s and the respective railroad’s preliminary investigations and findings to date. The probable causes and contributing factors, if any, have not yet been established. Therefore, nothing in this safety advisory is intended to attribute a cause to these incidents, or place responsibility for these incidents on the acts or omissions of any person or entity.

1. On July 4, 2012, at approximately 5:30 p.m., a BNSF Railway Company (BNSF) train crew noticed a sun kink (buckled track) in the rail ahead, and attempted to stop, but were unable to do so, which caused 43 loaded coal cars to derail in Pendleton, TX. BNSF preliminarily determined the cause of the derailment to be buckled track.

2. On July 4, 2012, at approximately 1:30 p.m., a northbound Union Pacific Railroad Company (UP) coal train with 137 cars, traveling at 39 mph, derailed 31 loaded coal cars in Northbrook, IL. The derailment occurred in a populated area on a steel trestle spanning a four-lane street. The bridge was destroyed, and the derailed cars fell on the roadway below, resulting in two fatalities. UP preliminarily determined the cause of the derailment to be buckled track adjacent to the bridge span.

3. On July 2, 2012, at approximately 6:30 p.m., a westbound BNSF unit coal train derailed 31 loaded cars of coal next to a public grade crossing in Mesa, WA. The train crew noticed feeling rough track going through the grade crossing, and then placed the train into...
emergency braking. BNSF preliminarily determined the cause of the derailment to be buckled track.

4. On June 23, 2012, at approximately 6:40 p.m., an eastbound UP coal train derailed 22 cars in the Powder River coal fields in Bill, WY. UP preliminarily determined the cause of the derailment to be buckled track.

Recommended Action: In light of the above discussion, FRA recommends that track owners and railroads:

1. Review with their employees the circumstances of the four track-buckling-related derailments identified above.

2. Discuss the requirements of CWR plans with employees responsible for inspecting CWR, with a focus on inspecting CWR track to identify buckling-prone conditions, and conditions that can lead to buckled track, such as recently-disturbed track, locations where rail was repaired or replaced, and locations that experience excessive load dynamics.

3. Evaluate and ensure that employees responsible for the inspection and repair of CWR track have been adequately trained and are capable of performing proper inspection and repair procedures.

4. Reinforce with employees responsible for inspecting track the importance of maintaining sufficient anchoring and ballast to maintain track lateral resistance, especially around fixed track structures (such as grade crossings, turnouts, and bridges), where the rail conditions are considerably tighter and are therefore more susceptible to the development of track buckles.

5. Review recent track maintenance records to identify previous buckling incidents, and their locations, for future inspection focus.

6. Apply heat-restriction slow orders at necessary locations, with consideration of populated areas, in order to significantly decrease the likelihood of a derailment and reduce the severity and consequences of any derailments that may occur.

7. Apply appropriate slow orders at speeds that will permit the passage of sufficient time and tonnage to restore track stabilization at disturbed track locations.

8. Review current internal engineering instructions to ensure that the instructions properly identify the necessary track maintenance instructions to prevent track buckling during extreme heat conditions.

FRA encourages railroad industry members to take other actions to help ensure the safety of the Nation’s railroad employees and the public. FRA may modify this Safety Advisory 2012–03, issue additional safety advisories, or take other appropriate actions it deems necessary to ensure the highest level of safety on the Nation’s railroads, including pursuing other corrective measures under its rail safety authority.

Issued in Washington, DC, on July 11, 2012.

Robert C. Lauby, Deputy Associate Administrator for Regulatory and Legislative Operations.

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DEPARTMENT OF TRANSPORTATION
Maritime Administration

[Docket No. MARAD 2012 0078]
Requested Administrative Waiver of the Coastwise Trade Laws: Vessel STARDUST; Invitation for Public Comments

AGENCY: Maritime Administration, Department of Transportation.

ACTION: Notice.

SUMMARY: As authorized by 46 U.S.C. 12121, the Secretary of Transportation, as represented by the Maritime Administration (MARAD), is authorized to grant waivers of the U.S.-build requirement of the coastwise laws under certain circumstances. A request for such a waiver has been received by MARAD. The vessel, and a brief description of the proposed service, is listed below.

DATES: Submit comments on or before August 15, 2012.

ADDRESSES: Comments should refer to docket number MARAD–2012–0078. Written comments may be submitted by hand or by mail to the Docket Clerk, U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590. You may also send comments electronically via the Internet at http://www.regulations.gov. All comments will become part of this docket and will be available for inspection and copying at the above address between 10 a.m. and 5 p.m., E.T., Monday through Friday, except federal holidays. An electronic version of this document and all documents entered into this docket is available on the World Wide Web at http://www.regulations.gov.


SUPPLEMENTARY INFORMATION:

As described by the applicant the intended service of the vessel STARDUST is:

Intended Commercial Use of Vessel: “Carry passengers only, not more than 6 passengers.”

Geographic Region: “Massachusetts.”

The complete application is given in DOT docket MARAD–2012–0078 at http://www.regulations.gov. Interested parties may comment on the effect this action may have on U.S. vessel builders or businesses in the U.S. that use U.S.-flag vessels. If MARAD determines, in accordance with 46 U.S.C. 12121 and MARAD’s regulations at 46 CFR part 388, that the issuance of the waiver will have an unduly adverse effect on a U.S.-vessel builder or a business that uses U.S.-flag vessels in that business, a waiver will not be granted. Comments should refer to the docket number of this notice and the vessel name in order for MARAD to properly consider the comments. Comments should also state the commenter’s interest in the waiver application, and address the waiver criteria given in § 388.4 of MARAD’s regulations at 46 CFR part 388.

Privacy Act

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT’s complete Privacy Act Statement in the Federal Register published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78).

By Order of the Maritime Administrator.

Dated: July 5, 2012.

Julie P. Agarwal, Secretary, Maritime Administration.

[FR Doc. 2012–17281 Filed 7–13–12; 8:45 am]
BILLING CODE 4910–81–P