JNS Urgent Procedure notification form		
1.	**Proposer** Name of the organisation / body	ANSFISA (Agenzia nazionale per la Sicurezza delle Ferrovie e delle Infrastrutture Stradali ed Autostradali) Italian National Safety Authority
2.	**Contact** Name and contact details	Andrea Biava, andrea.biava@ansfisa.gov.it +39/3669272882 Francesco Centola, francesco.centola@ansfisa.gov.it +39/3895134268
3.	**Describe the safety relevant findings triggering the introduction of the request, including the description of suspected/potential causes.** Factual description	Several fixed brake blocks occurred in Italy in the last two years (29 events – see Annex 1). Analysis carried out by ANSFISA shows that all events occurred to vehicles equipped with organic low friction coefficient (LL) brake blocks (IB 116* type – see Annex M.3 to Fiche UIC 541-4). The fixed brake block events were mainly caused by malfunctions to the continuous automatic brake. Events produced an increase of the temperature of the fixed wheels and the brake blocks were burned with consequences on the wheel tread and fire starting. 8 events concerned trains transporting dangerous goods. 4 events were detected by the Hot Axle Box Detection System. In the other cases, the hot axle box detection system was located at an average distance of about 23 km before the point where the train stopped due to fixed brake blocks. On average, events occurred within about 95 km from the departure and within about 100 km from the point of the last brake check carried out by the train crew. Emergency brake intervened during the running in 5 cases within about 60 km from the point of brake block detection. In one case the fixed brake block generated the derailment of one car of the train with damage on the car wheelsets and brake components.

4.	**Describe the immediate measures that have been implemented to mitigate the risk.**	After the safety alert issued by ANSFISA (see Annex 3) in February 2021, due to the increase of the number of fixed LL brake block events in the last months, ANSFISA required to railway operators the adoption of urgent preventive measures to be taken in case of LL brake block employment in freight train, in particular:
		• *Vehicle keeper must verify the conformity of LL brake blocks used in their vehicles to the Fiche UIC 541.4 and the compatibility of them with the wheel where they were installed with regards to the "Usage guideline for composite LL brake blocks, 10th edition";*
		• *ECM must verify the adequacy of vehicle's brakes maintenance plans with regards to the specific use of LL brake blocks, and apply shorter maintenance interval, if appropriate;*
		• *Railway undertaking must:*
		  • *prescribe special controls to trains having in composition vehicles with LL brake blocks carrying dangerous goods, after every intervention of the emergency brake;*
		  • *verify the effectiveness of brake checks before the departure or in case of change of the locomotive or when interface with another railway undertaking occurs;*
		  • *verify the correct use of brake and the respect of the speed limits by drivers, in order to prevent the emergency brake intervention;*
		• *infrastructure manager must:*
		  • *ensure and increase the point of train attendance;*
		  • *make available to railway undertaking the dislocation along the railway lines of hot axle box detection system points, train attendance points, points where risk due to fixed brake blocks could be higher;*
		  • *verify the possibility to adapt the temperature of hot axle box detection at the specific need of railway undertakings.*

5.	**Describe the reasons why the notification is introduced as an urgent action**	The notification is introduced as an urgent action due to the risk that comes from this kind of event (fixed brake blocks), especially when trains with dangerous goods are involved and fixed brake blocks could cause derailment and fires. The urgent action is also due to the increase of the number of fixed organic LL brake blocks events occurred even after the issue by ANSFISA of safety alert and the urgent preventive measures.
6.	**Identify the risks (severity / frequency) the reported facts have on the railway system: safety (fatalities, injuries…), financial (infrastructure and rolling stock damages, operation disruptions…), environmental and other societal impacts**	The main risk arising from this kind of event is related to safety. In particular, fixed LL brake blocks should cause risk of derailment and risk of fire. The severity of this events is increased if dangerous goods are transported. The frequency of this event in the last two years showed an increase: 29 fixed organic LL brake blocks were registered in Italy, with 8 events concerning transport of dangerous goods.

	Provide a rapid risk analysis.		
7.	**Please give detailed and motivated / grounded answers to the set of the filtering questions** **In your view,….**		
	Q1	Does the request contain sufficient information?	The Urgent Procedure notification form takes into account results of the template of fixed LL brake block events that occurred in Italy. This template data of the specific events occurred in Italy were collected in order to investigate further the problem. The template (see Annex 1) contains data about each fixed LL brake block event with regards to: • general information about the event; • trainset information; • trainset braking system features; • information about the maintenance of the train, brake performance check and preliminary technical check before the departure; • information about the running of the train before the event, even with regard to the rail infrastructure characteristics; • information about the event (detection source, point of the detection, intervention of the fire department,…); • involved vehicle in the event; • detection by any hot axle box detection systems); • effects of the fixed brake event; • running of the train after the event; • damages to the railway infrastructure, rail vehicles, environment; • possible cause of the event and measure taken.
		Do the reported facts concern a new risk, unknown until now or on which there is hardly any knowledge?	The reported facts concern an already known risk, which was communicated to railway sector through the safety alert issued by Dutch Inspectorate – ILT in November 2017 about "brake blocks LL in combination with sliding/fixed brakes". The issue was raised also by a safety alert of Italian NSA, on march 2021, and from Swedish NSA, on 28 October 2021,
		Is there sufficient knowledge / information on the problem to immediately define effective action(s)?	Effective actions should be identified by analyzing the community framework in order to share specific measures to be applied.
	Q2	Do the reported fact(s) involve/concern/are of interest for more than one country? Do the reported fact(s) involve/concern/are of interest for actors active on more than one country?	The reported facts involve more than one country since most of the events registered by ANSFISA (19 events) refer to cross-border traffic (see picture in Annex 2).

	Q3	Is the risk high? (*risk = severity X frequency)*). It can be either qualitative or quantitative risk analysis.	The risk related to derailments and fires due to fixed organic LL brake blocks is very high, especially if train with dangerous goods are involved in the event.
		Can the reported fact(s) have a high safety risk on several stakeholders from different countries?	Yes (railway undertakings, vehicle keepers, ECMs, manufacturers and infrastructure managers).
	Q4	Would the foreseen immediate / short term action(s) suggested via this procedure have an effect on the problem within a short period of time?	Short term actions should be taken into account by sharing information between Member States in order to define valid measures in the UE with effect on the analysed problem.
	Q5	Is it likely that the immediate measures taken by the involved actors will not mitigate or avoid the considered risk within a short time period? (If such measures are sufficient, the JNS Urgent Procedure is not applicable. If these are not sufficient, the JNS Normal Procedure can be applicable).	Currently there is no evidence that, immediate measures taken by the involved actors will mitigate or avoid the considered risk within a short time period.
		The correct implementation of EU law does not allow acting efficiently on the reported issue within a short time period. (Prima facie check).	The correct implementation of EU law does not allow acting efficiently on the reported issue. In fact, it has been currently checked the conformity of LL brake blocks involved in the events to the Fiche UIC 541-4 and the compatibility of LL brake blocks with wheels as indicated in the UIC "Usage guidelines for composite (LL) brake blocks (10th edition)". Non-compliance on this issue were not found so far .
8.	**What are the expected outcomes of the JNS Urgent Procedure?** Suggest specific topics and deadlines		The expected outcome of the JNS urgent procedure is the definition of specific measures that could reduce the risk due to the use of fixed organic LL brake blocks (risk of derailment and fire). Measures should be shared with all stakeholders, by considering the community framework.
9.	**List the bodies / organisations that should be involved in the JNS Urgent Procedure(as Panel temporary**		Vehicle keepers ECMs

	members and / or as members of the JNS Urgent Procedure Task Force)	Railway undertakings Infrastructure managers Manufacturers NSA NIB
10.	**Supporting documents if needed**	1. *Template of the fixed LL brake block events occurred in Italy between 2019-2021;* 2. *Geographical representation of the fixed brake block events' location* 3. *Safety alert concerning fixed composite low friction coefficient (LL) brake blocks, issued by ANSFISA, 09.02.2021;* 4. *Urgent preventive measures in order to avoid accidents and incidents to vehicles equipped with composite low friction coefficient (LL) brake blocks, issued by ANSFISA, 06.08.2021.*