

**GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)
(T.12016 / 1 / 2011-12 / NFC)**

From: Commissioner of Railway Safety,
Northeast Frontier Circle,
14, Strand Road, 12th Floor,
Kolkata – 700 001

To: The Chief Commissioner of Railway Safety,
Ashok Marg,
Lucknow.

Sir,

Subject: Derailment of 15640 Dn Guwahati- Puri Exp at about 20:12 hours of July, 10th 2011 at Km 355/8-6 between Stations Rangiya (RNY) and Ghoghrapar (GOE) on Guwahati (GHY) - New Bongaigaon (NBQ) Broad Gauge Single Line Non-Electrified Section of Rangiya Division, Northeast Frontier Railway.

I INTRODUCTION

1.1 Preamble

In accordance with Rule 3 of “Statutory Investigation into Railway Accidents Rules, 1998” published by the Ministry of Civil Aviation, I have the honor to submit a Brief Preliminary Report of my Statutory Inquiry into the derailment of 15640 Dn Guwahati - Puri Exp at about 20:12 hours of July, 10th 2011 at Km 355/8-6 between Stations Rangiya (RNY) and Ghoghrapar (GOE) on Guwahati (GHY) - New Bongaigaon (NBQ) Broad Gauge Single Line Non-Electrified Section of Rangiya Division, Northeast Frontier Railway.

1.2 Inspection and Inquiry

1.2.1 At 13:15 hours, on July, 10th 2011 (Sunday) while I was in my residence, Shri RP Yadav, Commissioner of Railway Safety, Eastern Circle called on my mobile phone and informed that Chief Commissioner of Railway Safety, Lucknow desired me to call him.

Immediately thereafter, at 13:16 hours Shri A. Mishra, Private Secretary to Chief Commissioner of Railway Safety, Lucknow called on my mobile phone intimating that Chief Commissioner of Railway Safety, Lucknow desired me to call him.

Accordingly, I called Chief Commissioner of Railway Safety, Lucknow on his mobile who advised me to conduct inquiry in to the derailment of 12311 Kalka Mail that took place at Malwan Station of Allahabad Division of North Central Railway. He also advised that he will advise General Manager, NC Railway and the Railway shall organize my movement to the site of the accident.

Later, CCRS informed me about the derailment of 15640 Guwahati - Puri Exp and enquired if any information has been received from the Railway about the same. On being informed that I had not received any information from the Railway, he advised me to enquire the details from

the Railway. I contacted Chief Safety Officer, Northeast Frontier Railway. At 21:28 hours, CSO, NF Railway informed that Guwahati - Puri Exp had met with an accident due to bomb blast and that 12 coaches got derailed out of which 4 (four) got capsized and some of them were in water. Details of casualties and injured were not available by that time.

I called and intimated CCRS of the information received from CSO at about 21:30 hours of 10th July, 2011. At that time, he advised me to conduct inquiry into the accident of 15640 Dn Guwahati - Puri Exp instead of that into the derailment of 12311 Kalka Mail, as advised earlier.

1.2.2 Accordingly, I informed Chief Safety Officer, N.F. Railway of my program of holding inquiry on 13-07-2011 & 14-07-2011 and asked him to arrange an air ticket for my travel on 11-07-2011 to Guwahati.

1.2.3 He was advised to ensure preservation of the clues and FAX complete details of the accident in the morning of July, 11th 2011.

1.2.4 As per First Information Report of the Railway received on July, 11th 2011, 77 (seventy-seven) passengers reportedly suffered injuries. It was stated in the report detailed classification and break up of injured was yet to be completed and advised by the Doctors.

At about 16:38 hours, Report of Dr. H.S. Mina, Chief Medical Director Northeast Frontier Railway received through FAX indicated nature of injuries as follows:

Number of death	:	Nil
Grievous Injury	:	03 (Three)
Simple Injury	:	13 (Thirteen)
Trivial Injury	:	24 (Twenty four)

1.2.5 Notification for holding the inquiry on July 13th & 14th 2011 in the Office of Divisional Railway Manager, Rangiya Division was issued and Railway was requested to arrange publication of the same in the important daily newspapers of the area.

1.2.6 A press notification was issued in leading News Papers of the area (both in English and in Regional Languages) inviting members of public, local people and passengers having knowledge relating to the accident to tender evidence at the inquiry in the Office of Divisional Railway Manager (DRM) at Rangiya on 13th and 14th of July, 2011 or write to my office at 14, Strand Road, 12th Floor, Kolkata-700 001.

1.2.7 Sr. Divisional Safety Officer, Northeast Frontier Railway Rangiya Division under his Office letter No. T / 2 / Accident (Bomb Blast) / RN / 11 dated 11-07-2011 made reference to the following to depute their representative during the inquiry.

- (i) Principal Secretary, Government of Assam, Dispur, Guwahati - 781001,
- (ii) Superintendent of Railway Police, Pandu.
- (iii) Superintendent of Police, Kamrup (Rural) District, Govt of Assam and
- (iv) District Commissioner, Kamrup (Rural), Govt of Assam

1.2.8 I reached Guwahati Airport On 11th July, 2011 at about 1810 hours by availing 6E292 Indigo Flight which departed from Kolkata at about 1655 hours.

1.2.9 Inspection of Site and Coaches

On 12-07-2011, I first inspected Locomotive WDM_{3D}11333 and Coach No. NF 03715 SLR next to engine kept available at Ghograpar Station and site at Km. 355/8-6 between Stations Rangiya and Ghograpar.

During my site inspection, I was accompanied by:

- (i) Divisional Railway Manager, Northeast Frontier Railway, Rangiya Division
- (ii) Chief Safety Officer, Northeast Frontier Railway
- (iii) Chief Project & Design Engineer, Northeast Frontier Railway, Maligaon
- (iv) Chief Motive Power Engineer (Diesel), Northeast Frontier Railway, Maligaon
- (v) Addl. Chief Security Commissioner, Northeast Frontier Railway, Maligaon and
- (vi) Other Branch Officers of the Division.

1.2.10 Thereafter, I visited Guwahati Medical College and Hospital at Guwahati where 2 (two) injured passengers were admitted and undergoing treatment and Central Hospital, Maligaon where 1 (one) injured passenger was admitted and undergoing treatment. During my visit to hospitals, I was accompanied by:

- (i) Chief Medical Director, Northeast Frontier Railway, Maligaon.
- (ii) Chief Safety Officer, Northeast Frontier Railway, Maligaon.and
- (iii) Other Doctors of Central Hospital and Guwahati Medical College and Hospital.

1.2.11 All injured cases admitted in different hospitals were discharged by after-noon of July,11th 2011 except the following 3 (three) cases as on 14.07.2011 -

SN	Name of Patient	Nature of Injury	Name of Hospital
1	Mrs. Sunanda Roy, F-42 W/O Ajit Roy Phatsil, G.S. Colony, GHY-9	Grievous	Shifted to CH/MLG where Patient was still undergoing treatment and as reported condition was stable.
2	Maya Rani Dutt Choudhury, F-70	Grievous	Shifted to GMCH where Patient was still undergoing treatment and as reported condition was stable.
3	Krishna Dutt Choudhury, F- 70	Grievous	Shifted to GMCH where Patient was still undergoing treatment and as reported condition was stable.

1.2.12 As per the scheduled program of holding inquiry, I commenced my inquiry from 10:00 hours of 13th July, 2011 which continued on 14th July, 2011.

1.2.13 The statutory inquiry on July 13th & 14th 2011 was attended by the following officers of Northeast Frontier Railway:

- (i) Dr. A. K. Manocha, Divisional Railway Manager, Northeast Frontier Railway, Rangiya Division.
- (ii) Shri Prem Chandra, Chief Safety Officer, Northeast Frontier Railway, Maligaon.
- (iii) Shri K.M Tripathi, Chief Planning & Design Engineer, Northeast Frontier Railway, Maligaon
- (iv) Shri P.K Mishra, Chief Motive Power Engineer (Diesel), Northeast Frontier Railway, Maligaon
- (v) Shri S.Z. Samuel, Additional Chief Security Commissioner, Northeast Frontier Railway, Maligaon

1.2.14 In all 33 (Thirty three) persons registered their statement out of which 8 (eight) were non-railway and remaining 25 were Railway Officials as under-

Non Railway:

- (i) Dy Supdt Railway Police / PNO (GRP) - 01
- (ii) SI / Police (OC GRP Rangiya) - 01

(iii)	Inspector of Railway Police (GRP)	-	01
(iv)	Sub-Divisional Police Officer, Rangiya	-	01
(v)	Local inhabitants of Village Udiyana	-	04

Railway: - 25

Total - 33

1.2.15 Preservation of clues

- (i) Locomotive WDM_{3D}11333 and Coach No. NF 03715 SLR next to engine were available at Ghograpar.
- (ii) The Medha speed recorder of the loco was seized and kept in safe custody.
- (iii) Still photographs of damaged coach and other relevant features of the accident site were taken.
- (iv) Sketch of the accident site including joint notes were recorded and prepared.
- (v) All the records pertaining to train operation maintained in Divisional Control at Rangiya, Rangiya (RNY) and Ghograpar (GOE) Stations as required were seized / sealed and preserved by the Railways.

1.3 The Accident

- 1.3.1 On 10-07-2011, 15640 Dn Guwahati (GHY) - Puri (PUI) Exp left Guwahati Station at its schedule departure time at 18:45 hours and was on its run between Stations Rangiya and Ghograpar.
- 1.3.2 The train arrived 30 minutes late at Rangiya Station at 19:58 hours as against scheduled arrival time of 19:28 hours. The train left Rangiya at 20:04 hours as against scheduled departure time of 19:38 hours.
- 1.3.3 The train met with the accident at 20:12 hours while it was on run between Stations Rangiya and Ghograpar at Km 355 / 8-6.
- 1.3.4 Locomotive WDM_{3D} 11333 that hauled the 15640 Dn GHY -PUI Exp derailed by all wheels.
- 1.3.5 8 (Eight) coaches from the engine derailed out of which 3 (three) coaches capsized whereas 1(one) was in tilted condition.
- 1.3.6 Derailment took place due to an explosion on the track at Km 355 / 8-7 in the face of approaching 15640 Dn Guwahati - Puri Exp. Explosion caused a crater of approximate size 4'x3'x1.5' on left side under the track. An electric wire 35' long running from the location of the crater that formed in the track towards right side used to trigger the explosive device planted in the track was found at the place of occurrence.
- 1.3.7 The passenger occupancy in the train was 524 against the capacity of 874 passengers.
- 1.3.8 As a result of the derailment, in all 40 (forty) passengers sustained injuries as categorized below.

(i)	Killed	-	Nil
(ii)	Grievous	-	03 (Three)
(iii)	Simple	-	13 (Thirteen)
(iv)	Trivial	-	24 (Twenty four)

1.3.9 The weather was fair and visibility was clear at the time of accident.

II RELIEF MEASURES

2.1 Intimation

2.1.1 1st information of the occurrence was conveyed by the Guard of 15640 Dn Guwahati – Puri Exp to on duty Assistant Station Master (ASM), Rangiya Station at 20:15 hours.

Assistant Station Master, Ghograpar Station overheard the conversation between the Guard of the train and ASM / RNY and informed the Section Control / RNY at about 20:20 hours. In turn Control informed all concerned.

2.1.2 Railway, Civil Authorities, Other Govt Officials and Non-Government Organisation moved to the site on receiving the intimation as under –

SN	Particulars	Arr time Hrs.
1	GRP	20:45
2	ADRM by Road	20:45
3	DRM / RNY along with Divisional Officers	21:05
4	GM, PCE, CME, CSO, CMD, CCM / PM, CRSE by Officers Special	22:30

2.2 Medical attention and relief

2.2.1 On receiving information of the accident, Medical Team comprising of Dr. M. C. Medhi, Sr. DMO / RNY along with 7 (seven) other paramedical staff left by Ambulance Van by road at 20:40 hours and arrived site at 21:00 hours.

Dr. N.K. Hazarika, CMS / RNY along with one more pharmacist and one more HA also followed the 1st team by another vehicle and reached site around 21:30 hours.

2.2.2 Site of the accident is not accessible by road vehicles. NH-31 runs parallel to the track in the area. Marginal bund of R. Nona is narrow. Distance of track is about 1 Km from the NH-31 through the said bund of R. Nona (Br. 508- 5x40' Km 355/3-2). First Railway Medical Team arrived within 48 minutes of the occurrence.

Injured cases disposed after rendering First Aid as soon as possible from examination of 1st case at 21:00 hours.

2.2.3 Rear eight unaffected coaches of 15640 Dn Guwahati – Puri Exp with passengers and those injured left site at 22:30 hours and arrived at Rangiya Station 23:05 hours.

2.2.4 The movement of ARMEs based at Guwahati and New Bongaigaon are appended below :

Particulars	ARME / GHY (Double exit)	ARME / NBQ (Double exit)	Remarks
(a) Time of ordering	20:35 Hrs.	20:22 Hrs.	Delay of 20 min in turning out
(a) Time of blowing the siren	20:40 Hrs.	20:22 Hrs.	

(c) Time of arrival at bar	21:10 Hrs.	20:37 Hrs.	turning out ARME / GHY and 20 min for dispatch from GHY.
(d) Time of dispatch from station	21:30 Hrs.	20:37 Hrs.	
(e) Time of arrival at the station immediately in the rear of the accident site, and at accident site	23:15 Hrs. 23:25 Hrs.	22:20 Hrs. 22:29 Hrs.	

2.2.5 All injured were shifted to the Rangiya Civil Hospital, Nalbari Civil Hospital located nearby by Road Ambulances and rear 8 (eight) coaches that left site at 22:30 hours and arrived at Rangiya Station at 23:05 hours.

2.2.6 ARME / NBQ arrived at site at 22:29 hours and left for NBQ at 23:40 hours without any injured case. ARME / GHY arrived at site at 23:25 hours and left site for Guwahati at 24:00 hours with 9 (nine) injured passengers.

2.2.7 As per record, there was delay in the dispatch / departure and movement of ARMEs.

2.2.8 The details of disposal of the injured furnished by CMS, Rangiya are as under:

Nature of injury	Numbers of passengers injured	Disposal of injured	Status (as on 12-07-2011)
Grievous	2	Shifted to Guwahati Medical College and Hospital from Rangiya Civil Hospital	Under Treatment
	1	Shifted to Central Hospital, Northeast Frontier Railway, Maligaon by ARME Scale-I	Under Treatment
Simple	4	Shifted to Rangiya Civil Hospital after First Aid.	Discharged on 11-07-2011
	7	Shifted to Nalbari Civil Hospital after First Aid.	Discharged on 11-07-2011
	2	Admitted to Central Hospital, Northeast Frontier Railway, Maligaon.	Discharged on 11-07-2011
Trivial	19	Shifted to Rangiya Civil Hospital after First Aid.	Discharged on 11-07-2011

	5	Admitted to Central Hospital, Northeast Frontier Railway, Maligaon.	Discharged on 11-07-2011
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2.2.9 Railway deputed their Doctors to co-ordinate with the Hospital Authorities where injured passengers of 15640 Dn had been admitted.

2.2.10 The Railway Administration initially disbursed ex-gratia amount of –

- (i) Rs. 5,000/- each passengers grievously injured.
- (ii) Rs. 500/- each passengers who sustained simple injuries.

Board's vide No. 2011/TC-III/27/17/NFR dated 11-07-2011 communicated enhancement of ex-gratia amount from Rs. 5000/- to Rs. 1,00,000/- to those grievously injured and from Rs. 500/- to Rs. 10,000/- to those who sustained simple injury.

2.2.11 Injured passengers undergoing treatment in Central Hospital at Maligaon and Guwahati Medical College & Hospital visited were enquired for any complaints whatsoever. However, none had any complaint in regard to (a) payment of ex-gratia and (b) medical attention and care being received by them.

2.2.12 There was no complaint either from passengers or from public about loss of property / personal belongings of passengers or about any negligence on the part of the Railway Administration.

2.3 Restoration and interruption to traffic

2.3.1 The movement of Accident Relief Trains (ARTs) based at New Guwahati and New Bongaigaon are appended below :

Particulars	ART / NGC	ART / NBQ	Remarks
		Double exit	
(a) Time of ordering	2025 Hrs.	20:22 Hrs.	
(a) Time of blowing the siren	-	20:22 Hrs.	
(c) Time of arrival at bar	-	-	
(d) Time of dispatch from station	22:00 Hrs. (ex HWX)	21:05 Hrs.	
(e) Time of arrival at the station immediately in the rear of the accident site, and at accident site	02:15 Hrs. (11-07-2011) 04:10 Hrs.	23:05 Hrs. 00:25 Hrs. (11-07-2011)	

2.3.2 ART / NGC at Hawaipur (Lumding Division) on 10-07-2011 for replacement of girders in Br.146, on receiving instructions left HWX at 22:00 hours after marshalling and arrived at Rangiya Station at 02:15 hours.

2.3.3 As per record, there was no any undue delay in the dispatch / departure or movement of ARTs to the site affecting restoration of rail communication between Stations Rangiya and Ghograpar.

2.3.4 Police clearance:

OC GRP / RNY gave clearance for commencement of restoring rail communication at 00:45 hours of 11-07-2011.

- 2.3.5 After obtaining Police Clearance at 0045 hours of 11-07-2011, restoration works were commenced. Locomotive was re-railed at 08:20 hours. ART / NBQ moved to GOE to clear the re-railed loco and returned at 09:30 hours at site.
- 2.3.6 ART / NGC arrived at site at 04:10 hours of 11-07-2011. After completion of the work, ARTs cleared the site at 1900 towards RNY end and 1915 hours towards NBQ end to complete the restoration of the remaining portion of track of about 30 m. ART / NBQ cleared the section at 20:05 hours to Ghograpar Station.
- 2.3.7 Sr. Sectional (P. Way) / RNY at site vide No. G/455/11 dated 11-07-2011 issued Track Certificate for train running at 20:00 hours of 11-07-2011. Dn BCN Empty Stock left Rangiya Station at 20:25 hours and arrived at Ghograpar Station at 21:00 hours.
- 2.3.8 Details of delay, termination and cancellation of trains are appended below:

Trains terminated - 15770 Dn.

Trains Cancelled - 55801/55802, 55809/55810, 55753/55754, 15769/15770, 15771/15772 on 11-07-2011.

Trains diverted - 14056 Up Arr TIHU 2030 hours. Returned back to NBQ and run Via GLPT.
All long distance trains and freight trains diverted to run via GLPT.

Trains delayed - Nil

III THE TRAIN

3.1 Composition and marshalling order of the train

3.1.1 Locomotives

- 3.1.1.1 The loco No. WDM_{3D} 11333 which hauled 15640 Dn Guwahati - Puri Exp was manufactured by Diesel Locomotive Works (DLW), Varanasi and commissioned on 26-11-2010. It earned 99427 Kms after commissioning. Last trip inspection was done at Howrah on 08-07-2011. No schedule was overdue.
- 3.1.1.2 The length and weight of the loco was 18632 mm and 123.6 tonnes respectively.
- 3.1.1.3 The loco was provided with Headlight, Flasher Light, Vigilance Control Device, Speedometer and speed recorder. All were in working order. The loco was running with long hood leading.
- 3.1.1.4 The loco was having Air Brake with 100% brake power. Brakes viz. A9, SA-9, Dynamic Brake, Emergency Brake and Hand Brake were available with loco in working condition.

3.1.2 Coaches

15640 Dn Guwahati - Puri Exp comprised of 16 coaches. The marshalling order of the train was as under:

SN (from engine)	Coach No.	Body & type	Year built	Last POH	Date of return	Remarks
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1	NF 03715 SLR	Steel / ICF	2003	DBWS- 16.02.11	09/201 2	Derailed by all wheels
2	NF 10484 GS	Steel / ICF	2010	RCF - 31.08.2010	09/201 2	
3	NF 01421 GS	Steel / ICF	2001	DBWS- 21.01.10	08/201 1	Derailed & capsized
4	NF 01232 GSCN	Steel / ICF	2001	DBWS- 09.03.10	10/201 1	
5	NF 05201 GSCN	Steel / ICF	2005	DBWS- 25.04.11	11/201 2	
6	NF 8723 GSCN	Steel / ICF	1995	NBQS- 19.03.10	10/201 1	Derailed & tilted
7	NF 98223 GSCN	Steel / ICF	1998	DBWS- 04.03.10	10/201 1	Derailed by all wheels
8	NF 04802 WCB	Steel / ICF	2004	DBWS- 08.07.10	02/201 2	F/Trolley derailed by all wheels
9	NF 09216 GSCN	Steel / ICF	2009	BEML-12/09	12/201 1	On Rail
10	NF 01228 GSCN	Steel / RCF	2001	DBWS- 21.01.10	08/201 1	
11	NF 97076 ACCW	Steel / ICF	1997	DBWS- 10.02.11	09/201 2	
12	NF 07125 ACCN	Steel / ICF	2007	NBQS- 03.11.09	06/201 1	
13	NF 07235 GSCN	Steel / ICF	2007	NBQS- 21.06.11	01/201 3	
14	NF 06403 GS	Steel / ICF	2006	DBWS- 21.09.10	02/201 2	
15	NF 09443 GS	Steel / ICF	2009	RCF-09/09	09/201 1	
16	NF 10704 SLR	Steel / ICF	2010	RCF-03/10	03/201 2	

3.2 Length, Weight and Brake power of the train

3.2.1 The length and weight of the train were 356.752 m and 630.13 t respectively excluding the engine.

3.2.2 The train was fully air braked with 100% brake power.

3.3 The seating capacity of the train was 874 while the actual occupancy was 524.

3.4 Damages and Disposition

3.4.1 Damages to Loco

WMD_{3D} 11333 that hauled ill fated 15640 DN Guwahati - Puri Express on 10-07-2011

Suffered the following damages as a result of the derailment -

- (1) Buffer of short Hood damaged,
- (2) Side bearer pad dowel of Loco left side 1, 2, 3 displaced from dowel hole,
- (3) Safety brackets of pull rod of right side 1 & 2 bent, and
- (4) Both side footsteps broken.

3.4.2 Damages to coaches

Damages suffered by 8 (eight) coaches of 15640 Dn Guwahati - Puri Express on 10-07-11 as a result of the derailment are as under –

SN (from Engine)	Coach No	Disposition	Damages(Brief description)
1 st	NF 03715 SLR	Derailed by all wheels	(i) Rear end - End panel bent, (ii) Rear end trolley - All safety straps with lug broken.
2 nd	NF 10484 GS	Derailed by all wheels	(i) Rear end - End panel broken, (ii) Sole bar bent, (iii) Rear end head stock badly bent & broken, (iv) Trolley frame broken, (v) Cross girder cracked.
3 rd	NF 01421 GS	Derailed & capsized	(i) Rear side far away from track & front side entangled with coach body of 10484 NF/GS, (ii) Both side head stock broken, (iii) Both Trolley frame broken, (iv) Cross girder cracked, (v) Sole bar bent, (vi) Trough floor broken & roof bent at end, (vii) Head stock bent & cracked.
4 th	NF 01232 GSCN	Derailed, capsized and rolled down in water	(i) Both side head stock broken, (ii) Both Trolley frame broken, (iii) Cross girder cracked, (iv) Sole bar bent, (v) Trough floor broken & roof bent at end, (vi) Head stock bent & cracked.

5 th	NF 05201 GSCN	Derailed, capsized and rolled down in water	(i) Both side head stock broken, (ii) Both Trolley frame broken, (iii) Cross girder cracked, (iv) Sole bar bent, (v) Trough floor broken & roof bent at end, (vi) Head stock bent & cracked.
6 th	NF 8723 GSCN	Derailed and tilted	(i) Front side on water field & rear side far way from track, (ii) Both side head stock broken, (iii) Both Trolley Frame broken, (iv) Cross girder cracked, (v) Sole bar bent, (vi) Trough floor broken & roof bent at end, (vii) Head stock bent & cracked.
7 th	NF 98223 GSCN	Derailed by all wheels	(i) Both side head stock broken, (ii) Both trolley frame broken, (iii) Cross girder cracked, (iv) Sole bar bent. (v) Trough floor broken & roof bent at end, (vi) Head stock bent & cracked.
8 th	NF 04802 WCB	Front Trolley derailed by all wheels	(i) Front trolley all safety strap with lug broken.

3.4.3 Signal & Telecommunication

Derailed of 15640 Dn Guwahati – Puri Exp in the block section caused no damages whatsoever to the S&T gears.

3.4.4 Permanent Way

200 m track completely damaged.
200 m rails and 300 Nos concrete sleepers damaged.

3.4.5 Electrical

Brief descriptions of damages submitted by the Electrical Department are as under:

- a) Battery,
- b) Alternator,
- c) RRU,
- d) Light & Fans
- e) Under-gear wiring.

3.5 Approximate cost of damages

i) Locomotive (WDM _{3D} 11333)	:	Rs. 88,000/-
ii) Rolling Stock	:	Rs. 1,98,32,848/-
iii) Electrical	:	Rs. 24,00,000/-
iv) Permanent Way	:	Rs. 11,40,000/-
v) S & T	:	Rs. Nil

Total cost of damages : Rs. 2,34,60,848/

IV LOCAL FEATURES

4.1 The Section and the site

- 4.1.1 The site of accident is at Km 355/6-8 between Stations Rangiya and Ghograpara on New Bongaigaon - Rangiya - Guwahati single line non-electrified 'D' Route.
- 4.1.2 Site is located in the Civil District of Kamrup Rural at a distance of 5 Km from Rangiya Station and 2.77 Km approximately from Ghograpar Station.
- 4.1.3 The track runs in West - East direction in the section. The nature of the country around the site is open & arable, alignment having curvature of 0.5° and gradient of 1 in 200 falling towards Rangiya.
- 4.1.4 Bank height is 3.30 m with stable formation. The kind of soil is sandy.
- 4.1.5 Bank slopes at the accident sight were covered with thick vegetation growth and bushes provided cover to the saboteur.
- 4.1.6 Area around the site is marshy. Coaches that capsized and lying at the toe of the bank on its side could be seen submerged nearly up to the location of the pivot.
- 4.1.7 The Permanent Way at the place of accident consisted 52 Kg 13 m long rails laid in the year 2001 on mono-block PSC sleepers having density 1540 Nos. / Km (M+7) with elastic fastenings and ballast cushion of 250 mm (1.75 Cum / m).

4.2 Signaling and System of working

New Bongaigaon (NBQ) – Rangiya (RNY) Section is equipped with Standard I, II (R), III with MACL Signaling having Absolute Block System of working with token-less single line block instruments. All the Stations are provided with PI / EI with motor operated points controlled from Central Panel.

4.3 Headquarters and jurisdiction

- 4.3.1 Section is controlled from Control Office of the Division located at Rangiya.
- 4.3.2 Headquarter and jurisdiction :
- 4.3.2.1 Engineering Department

Official / Gang	HQ	Jurisdiction
Sr. Divisional Engineer / Co-ord	Rangiya	BG – I (Km 316/5-254/9) BG-II (Km 248/2-34/3 & 34/3-172/3) and RNY-MZS MG Section.
Sr. Divisional Engineer / I	Rangiya	BG – I (Km 254/9 - 392/2-3)
Asstt. Divisional Engineer	Rangiya	Km 316/5 – 392/2-3
Sr. Sectional Engineer / P.Way	Rangiya	Km 316/5 – 392/2-3
Sectional Engineer / P. Way	Rangiya	Km 339/5 – 368/8
Gang	Ghograpar	Km 350 / 0 – 356 / 0

4.3.2.2 Signaling & Telecommunication Department

SN	Official	HQ	Jurisdiction
1	Sr. Divisional Signaling & Telecom Engineer	Rangiya	CGS-RNY-BNGN, AZA-GLPT-NBQ (BG) & GVR-RPAN-NLP-MZS (MG)
2	Divisional Signaling & Telecom Engineer	Rangiya	CGS-RNY-NLV (BG) GVR-ULG (MG)

3	Senior Sectional Engineer / Sig	Rangiya	CGSRNY-NLV (BG) GVR-ULG (MG)
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4.4 Monsoon patrolling was in force in the section w.e.f 16-05-2011.

4.5 Security / police patrolling in force in the Section stood withdrawn w.e.f 02-07-2011 in terms of the COIS No. CNL/03/07/2011 dated 01-07-2011 in reference to No. CSC/MLG/RPF/IB/6/2011 dated 01-07-2011.

Instructions / orders contained in COIS Mail No. CNL/34/07/11 dated 11-07-2011, after the derailment of 15640 Dn are reproduced below –

‘ALL PASSENGER CARRYING TRAINS ARE TO BE RUN IN CONVOY AND PILOTED EITHER BY GOODS TRAIN / EMPTY RAKE OR SECURITY LIGHT ENGINE BETWEEN KYQ TO SRIRAMPUR (ASSAM) VIA GLPT AND RNY FROM 18:00 TO 05:00 HRS W.I.E UNTILL FURTHER ADVICE (.) DURING NIGHT NO LOADED TRAIN SHOULD RUN ON THE SAID SECTION.’

4.6 Maximum permissible sectional speed is **100 Kmph** .

No permanent speed restriction was in force in the vicinity of the accident site on the day of the accident in RNY-GOE Section. There was no temporary speed restriction in force in the vicinity on the day of the accident on the section.

4.7 Caution order issued to the crew of 15640 Guwahati – Puri Exp on 10-07-2011 contained the following –

SN	Between Stations	Km / TP	Permanent SR	Date of imposition	Reason
5	KDKN-RNY	362/3-2	NS-30	07-07-2011	Through Rail Changing Br. 513
6	TIHU-PBL	324/1-0	NS-30	09-07-2011	TFR (Through Fittings Renewal) (09:00-15:00 hours)

There was no caution to be observed in the vicinity of the accident site between Stations Rangiya and Ghograpar.

4.8 The dates of last inspection of the track prior to accident are as below :

SN	Official	Date	Inspection by
1	Sr. Divisional Engineer / Co-ord / RNY	02-07-2011	Foot Plate (RNY-NBQ)
2	Sr. Divisional Engineer / I / RNY	28-06-2011	Footplate (RNY-NBQ)
3	Asstt. Divisional Engineer / RNY	07-06-2011	Trolley (RNY-NLV)
4	Sr. Sectional Engineer / P.Way / RNY	01-07-2011	Foot Plate (RNY-TIHU)
5	Sectional Engineer / P. Way RNY	06-07-2011	Night Foot plate (KYQ-NBQ)

During their inspection, inspecting officials found no defects.

4.9 Daily record of rainfall of 7 (seven) days prior to the accident reflected meager rainfall of 22 mm.

Record of rainfall at Rangiya (RNY) during the last 3 (three) months is appended below:

<u>Month</u>	<u>Rainfall recorded at RNY</u>
April, 2011	111 mm
May, 2011	344 mm
June, 2011	145 mm

- 4.10 Kilometrage of various stations / locations referred to in the report reckoned from the center line of Station Bulding of New Jalpaiguri Railway Station are-

Station / Location	Kilometer
Guwahati (GHY)	408.28
Rangiya (RNY)	360.76
Accident Spot – (RNY-GOE)	355/6-8
Ghoghrapar (GOE)	352.99
New Bongaigaon (NBQ)	251.41
New Jalpaiguri (NJP)	000.00

V SALIENT FEATURES

- 5.1 On 10-07-2011, 15640 Dn Guwahati (GHY) - Puri (PUI) Exp. hauled by Diesel Locomotive No. WDM_{3D} 11333 was on its run from Guwahati to Puri between Stations Rangiya and Ghograpara.
- 5.2 15640 Dn started from Guwahati at its scheduled departure time of 18:45 hours. It had an eventless run and arrived 30 minutes late at 19:58 hours as against scheduled time of arrival of 19:28 hours at Rangiya Station (RNY).
- 5.3 It left Rangiya Station (RNY) Km 360.76 at 20:04 hours and met with accident at 20:12 hours after covering barely a distance of about 4.5 Km while on run between Stations Rangiya and Ghograpar at at Km 355/8-6.
- 5.4 Locomotive WDM_{3D} 11333 that hauled the 15640 Dn long hood leading derailed by all wheels. Cowcatchers missing were reported to have been removed to facilitate re-railing of the loco.
- 5.5 No visual sign of any severe damage was reported to have been suffered by the locomotive as a result of the derailment. However, it was stated that the Loco shall be subjected to a detailed under gear examination in the Shed.
- 5.6 8 (Eight) coaches from the engine also got derailed as a result of the accident out of which 3 (three) coaches capsized whereas 1(one) was in tilted condition.
- 5.7 6 (Six) capsized and off-tracked Coaches positioned 2nd to 7th from engine could be seen lying on the right hand side of the track.
- 5.8 2 (Two) Coaches positioned 1st and 8^h from loco were re-railed.
- 5.9 Eight coaches from rear remained on rail with no damage to its under gear.
- 5.10 Derailment took place due to an explosion on the track at Km 355 / 8-7 in the face of approaching 15640 Dn.
- 5.11 Explosion caused a crater of approximate size 4'x3'x1.5' on left side under the track.
- 5.12 OC / GRPS / RNY has registered a case vide No. GRPS / RNY / Case No. 29/11 dated 10.07.11. U/S 120,120(B) / 121(A), 307, 427 IPC & RW section 10/13 of UA (P) Act, RW Section 3/4 ES Act & 151 of Railway Act.
- 5.12.1 The samples of ballast pieces / stone and sand, one small flexible wire length approx 2' and one small wire (color blue & yellow) approx 35' collected from the place of occurrence (PO) had been sent to Forensic Laboratory, Guwahati for examination.
- 5.13 OC / GRPs / RNY gave site clearance for restoration at 00:45 hours of 11-07-2011.

- 5.14 Similar incident of train wrecking involving Up Goods train occurred at Km 355 / 56 in 1999.
- 5.15 The speed recorder of the loco WDM_{3D} 11333 that hauled 15640 Dn Guwahati – Puri Express from Guwahati to Puri was Medha Speed Time Distance Recording System Type MRT 912c (ver 1.0). The data recorded in the memory card was retrieved. Data retrieved and presented indicated speed of 15640 Dn at the time of the accident as 82 Km/h.
- 5.16 Senior Sectional Engineer / C & W (Carriage & Wagon) / NBQ, Senior Sectional Engineer / P.Way / RNY, Sectional Traffic Inspector / RNY, OC / RPF and OC / GRP RNY in their joint note recorded their observations on the spot including the affected track.
- 5.17 RPF escorts were traveling on duty by the ill fated train on 10-07-2011. There has been **no complaint whatsoever**.
- 5.18 Sr. Sectional (P. Way) / RNY at site vide his No. G/455/11 dated 11-07-2011 issued Track Certificate for train running at 20:00 hours of 11-07-2011 with Stop Dead & 10 km/h until further advice. Dn BCN Empty Stock left Rangiya Station at 20:25 hours passed the site at 20:55 hours and arrived at Ghograpar Station at 21:00 hours.
- 5.19 The weather was fair and visibility normal at the time of accident.
- 5.20 There was no any intelligence advice / threat and security / police patrolling in force in the Section stood withdrawn w.e.f 02-07-2011 in terms of the COIS No. CNL/03/07/2011 dated 01-07-2011 in reference to No. CSC/MLG/RPF/IB/6/2011 dated 01-07-2011.
- 5.21 Adverse site conditions with no accessibility by road vehicles revealed the need for ARME / SPART to be based at Rangiya for better handling of such eventualities in future.

VI PROVISIONAL FINDINGS

- 6. Having carefully considered all the evidence tendered, records produced, observations, site inspection and circumstantial evidence, I have come to the conclusion that the derailment of 15640 Dn Guwahati - Puri Exp at about 20:12 hours of July, 10th 2011 at Km 355/8-6 between Stations Rangiya (RNY) and Ghograpar (GOE) on Guwahati (GHY) - New Bongaigaon (NBQ) Broad Gauge Single Line Non-Electrified Section of Rangiya Division, Northeast Frontier Railway was caused due to an act of train wrecking by planting certain explosive device / bomb in the track and triggering the same by a remote control or otherwise in the face of the approaching train by some unknown person(s).

Accordingly, the cause of the accident is attributed to and classified as – ‘**Sabotage**’.

(B. SINGH)
Commissioner of Railway Safety
Northeast Frontier Circle, Kolkata

