

APPENDIX 2: RESPONSES RECEIVED FOLLOWING INSPECTION OF THE REPORT.

A draft version of this report was submitted to the parties involved for perusal, in accordance with the Dutch Safety Board Act. These parties were then requested to check the report for any errors and ambiguities. The draft version of this report was submitted to the following parties:

- Train driver
- Workplace Safety Leader
- ProRail
- Speno International
- BAM Rail
- the railAlert Foundation
- Dutch Association of Railways Regulations and Documentation (VSD)
- Ministry of Infrastructure and the Environment (IenM) and the Transport, Public Works and Water Management Inspectorate (IVW)
- Minister of Social Affairs and Employment (SZW) and the Health and Safety Inspectorate (AI)

All the above parties issued a response, with the exception of railAlert. The VSD did not have any content-related comments. The responses can be classified in the following two categories:

- The Safety Board has incorporated corrections of factual errors, supplementary detailed information and editorial comments where relevant. The relevant sections were adjusted in the final report. These responses are not individually mentioned in the report.
- Replies have been issued to all responses not incorporated into the report. These replies are featured in the table below, grouped by party. In addition to the verbatim reply, the table also features the following information: to which section the response relates, the party providing the response and the Safety Board's reply. In cases where a response has resulted in supplements/adjustments to the report, this will be indicated in the reply.

No.	Party	Section	Response and reply
1	BAM Rail	2.2	<p><i>In the Netherlands, Speno has a contractual agreement with the commissioning party (ProRail), while BAM Rail is responsible for organising safety and the removal of grinding waste on behalf of Speno.</i></p> <p>Reply: The division of roles has already been explained in chapter 4.</p>
2	BAM Rail	2.2	<p><i>According to the contractual agreement, Speno should have access to six parking stands. However, only three stands were available. A fourth stand was recently added.</i></p> <p>Reply: The Safety Board has taken cognisance of the addition of a fourth parking stand.</p>
3	BAM Rail	2.4	<p><i>The train driver turned around to talk to someone, and was distracted: The train driver should have said "sorry, I'm driving, it'll have to wait" (the train driver thus admits his own failure to follow proper safety procedures).</i></p> <p>Reply: The response does not relate to factual aspects.</p>
4	BAM Rail	2.4	<p><i>The train driver issues the command "Bremsen, Bremsen": According to the information I received from the Speno driver, this is incorrect. The Speno staff member in the rear cabin shouted "Notbremse, Notbremse" and the (Speno) driver responded by activating the brakes.</i></p> <p>Reply: According to the available information, the rail grinding staff member in</p>

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			the rear cabin reported seeing railway workers at the level crossing via the intercom; the train driver, in summary, stated that he issued the instruction to start braking.
5	BAM Rail	4.1	<p><i>Ensure an adequately educated/trained and experienced train driver: Speno is responsible for providing the necessary education/training.</i></p> <p>Reply:</p> <p>According to the Safety Board, both BAM Rail (in its capacity as official transport operator) and Speno must ensure that the vehicle operator has the required education/training. This responsibility is not diminished by the fact that this was a Speno employee and that this company provided the education/training.</p>
6	BAM Rail	5	<p><i>Government supervision (IVW): IVW regularly audited BAM Rail, and is ensuring supervision and providing law enforcement where necessary.</i></p> <p>Reply:</p> <p>This aspect has been dealt with in chapter 5.</p>
7	BAM Rail	5.2.1	<p><i>Signals and signs positioned correctly by the infrastructure manager. In this case, no light signal had been installed near the markers. See page 41 2nd paragraph marker. Markers are intended to serve as a supplement to light signals.</i></p> <p>Reply:</p> <p>This aspect was dealt with under point 2 of paragraph 5.2.2 and in appendix 6.</p>
8	BAM Rail	5.2.2	<p><i>The train driver was distracted: If the train driver was distracted because he was talking to one of the Speno staff members, how could he be sure he was distracted upon reaching the markers? According to our investigation, he was not aware of the existence of the marker signs. He was using the grinding plan, which indicated the speed reduction sign and speed sign.</i></p> <p>Reply:</p> <p>Based on the reconstructed accident timeline, the driver consulted the documentation and talked to the rail grinding employee during this period. The 'uncommonness' of the marker is dealt with under point 2 of 5.2.2.</p>
9	BAM Rail	5.2.2	<p><i>Piloting: IVW was aware of this Speno practice, which was frequently discussed during audits and was also dealt with in audit programmes.</i></p> <p>Reply:</p> <p>IVW was indeed aware of the fact that piloting was used during rail grinding train transfer journeys.</p>
10	BAM Rail	5.2.2	<p><i>BAM Rail has conducted a transport risk assessment based around the ALARP principle, which assessment is adjusted and/or supplemented where necessary in the wake of any incidents. BAM Rail also submitted written questions to IVW regarding the use of these vehicles on ATB-NG track sections (letters are in your possession), to which no clear answers were ever provided.</i></p> <p>Reply:</p> <p>The Safety Board is familiar with the BAM Rail 'transport risk assessment'. The conclusion that the ALARP requirement was not being met, relates to the fact that the failure to implement available</p>

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			compensatory measures was not based on valid arguments.
11	BAM Rail	5.4.1	<p><i>No specific RI&E: BAM Rail has conducted a risk assessment of the transport process which also focuses on various specific issues mainly relevant to Speno. In addition, there is a special risk dossier for the Speno project, outlining a broad range of risks and the relevant action holders and latest statuses. This Speno risk dossier is updated on a highly frequent basis.</i></p> <p>Reply: The Safety Board is aware that BAM Rail has prepared a general RI&E for the use of trains on railway lines that are in service. However, as mentioned in 5.4.3, this document does not focus on all relevant transport operator-related risks in sufficient depth.</p>
12	BAM Rail	5.5.6	<p><i>The adjustment of work schedules was exclusively in the interest of ProRail, for the purpose of maximising production. BAM Rail raised this issue with ProRail on several occasions, but no measures were taken in response.</i></p> <p>Reply: Also see responses 54 and 55 and the relevant replies.</p>
13	BAM Rail	5.6	<p><i>Overview of past incidents. BAM Rail has pointed to the omission of the accident (train runs through buffer stop) in Amsterdam in 2007, which it regards as being similar in many aspects.</i></p> <p>Reply: The Safety Board is aware of this specific accident. In this specific buffer stop crash, which took place in Amsterdam on 15-12-2007, an empty passenger train was being driven to a parking stand; the crash was caused by the fact that the driver became distracted by Christmas decorations next to the railway track, as he approached the buffer stop. Due to conditions and cause, the Safety Board did not classify this accident as 'comparable to Stavoren'.</p>
14	BAM Rail	5.7.3	<p><i>Both ProRail and BAM Rail worked with IVW-certified companies. BAM Rail also conducted various audits at Spoorflex to ensure that the company was capable of performing its obligations as an IVW-certified employment agency. These audits by BAM Rail contain two references to Spoorflex's lack of a proper system to ensure route knowledge. Improvements were made after the initial audit. During the second audit, BAM Rail indicated that these improvements were still inadequate. Spoorflex subsequently made efforts to address these concerns, but BAM Rail was unable to verify whether they were successful, as Spoorflex ceased to exist.</i></p> <p>Reply: The comment does not contain any substantive additional information.</p>

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15	BAM Rail	5.7.5	<p><i>The report does not deal with the contractual situation and related problems in sufficient detail. The price reductions in the contractual calculations still date back to 2004. It should be pointed out that some staffing positions no longer exist. This situation greatly effects day-to-day operations and especially the safety of all processes. Negotiations and discussions on proposals to amend the contract are extremely laborious, and fail to achieve results. This can be attributed to ProRail's formal and inflexible attitude to the contract. This has a negative effect on aspects such as safety, fires and the removal of grinding waste. ProRail takes the view that all risks of whatever nature are to be borne by the contractor. It has proven almost impossible to organise meetings on risk management with ProRail, with only two such meetings held in the past few years. These problems arose after the organisational changes at ProRail's project team in August 2008, and have continued to the present day.</i></p> <p>Reply/handling: The report states that the parties did not engage in any meaningful discussions or develop a joint approach.</p>
16	Workplace Safety Leader	2.2.4	<p><i>The long meeting mainly focused on the inadequate operating instructions used by the train driver (pilot). The Workplace Safety Leader sent me a new operating instructions, which I was supposed to give to the pilot/train driver upon arrival in Stavoren. I also said that I would not going to discuss it at that point in time, that we would I talk when we got to Stavoren. (I informed the pilot about the journey to Stavoren in consultation with the train traffic controller, it took me approximately 1 minute to do so).</i></p> <p>Reply: This information was already known and has been incorporated into the report where relevant.</p>
17	Train driver	5.2.2	<p><i>The kilometer signs that normally serve as an indicator were missing or barely visible or legible. As a result, it was extremely difficult to orientate myself. I was having a hard time determining my position due to the missing or illegible kilometer signs, and I thought there was still a level crossing up ahead. This was mainly due to the fact that the work train drawing featured a 40-kilometersign, but I never saw one. As it turned out later, there was no sign. The discrepancy between the drawing, which was identical to the ProRail railway guide, and the actual situation was highly confusing.</i></p> <p>Reply: According to the Safety Board, the aforementioned issues have been dealt with satisfactorily in the report.</p>
18	Train driver	5.2.2	<p><i>I met all Spoorflex and BAM requirements. I'm still convinced, therefore, that my route knowledge would have been adequate if the other factors had been in order, especially considering the standards that applied at the time. Spoorflex used off-peak hours to maintain its employees' route knowledge. The fact that I cannot provide confirmation that I was accompanied by an Arriva employee does not mean the journey did not take place. It did take place.</i></p> <p>Reply: The conclusion that the train driver's route knowledge did not meet requirements is based on the fact that he did not demonstrably refresh his knowledge of the track section in the last twelve months prior to the</p>

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			accident.
19	Train driver	5.2.2	<p><i>I wasn't "less focused on the signals in the minutes leading up to the accident". I did spend a short time talking to the Italian behind me, but – with the exception of a very brief moment, more like a few seconds - I was constantly focused on the route. I was mainly checking the documentation because I didn't come across the brake sign and was trying to orient myself. I did feel confused as a result of the drawing.</i></p> <p>Reply: In the view of the Safety Board, the fact that the driver 'checked the documentation' and 'consulted' with his colleague constitutes a state of distraction or diminished attention. Also see response 20.</p>
20	Train driver	5.2.2	<p><i>Especialy as a work schedule is changed Speno employees ask questions which must be addressed by using drawings because of the language barrier. Because of the changes a Speno employee asked several questions about where the work was to start, as he would have to adjust the schedule.</i></p> <p>Reply: This is addressed in the second bullet point of this section.</p>
21	Train driver	5.5.1	<p><i>This states that: "The Safety Board notes that current legislation in this area is unclear". However, Appendix 4 of the Rail Traffic Regulations in Chapter 3 clearly states that approach markers can only serve as a supplement to light signals. The presence of a yellow signal in Stavoren - in accordance with legal requirements - would have diminished the likelihood of this accident by 99.9%. The piloting train drivers do not use this track section on a daily basis so they don't know exactly where to brake. ProRail is aware of this fact.</i></p> <p>Reply: See the reply to response 51.</p>
22	Train driver	5.5.2	<p><i>This states that: The criterion for determining whether a train driver has maintained his knowledge of a specific track section is defined as follows: "the driver must have travelled on the relevant section within the past year." I don't know by which law this is required. I can't find any references to it in the report either, so I wonder whether it's really a strict requirement. I always applied it though, which is why I felt it would be alright to use the track section: I travelled in the cabin as a passenger six months before the accident. We didn't usually keep any logs of those sorts of journeys.</i></p> <p>Reply: As indicated in the report, this requirement was applied by both Spoorflex and BAM Rail, in accordance with the VDS Handbook for the Transportation Process.</p>
23	Train driver	5.5.7 Partial conclusions	<p><i>According to the final conclusion, the practices of piloting, passengers in the cabin, driving with ATB-E equipment on ATB-NG track sections and the ATB switch off systems were not in violation of current laws and regulations. However, it is clear that a combination of these factors will result in greater safety risks. I don't understand why the report doesn't come to this conclusion. Especialy in view of the fact that the passengers in the cabin had poor language skills. Where any tests conducted to determine whether they spoke adequate German or English?</i></p> <p>Reply:</p>

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			<p>The conclusion that these practices were not in violation of any laws and regulations does not mean the Safety Board is not critical of the procedures. However, this criticism is outlined in other parts of the report and summarised in the first section of the relevant partial conclusion (5.5.7).</p>
24	Train driver	5.8.1	<p><i>It says that the train driver's route knowledge had to meet the requirements applied by the employer, and that there was no way of proving that this was the case. To my knowledge, there was not a single requirement that I failed to meet. As far as I know, my route knowledge was in accordance with Spoorflex guidelines. I met all Spoorflex and BAM requirements. I don't understand why the conclusion would say any different, and I don't agree with it.</i></p> <p>Reply: The failure to meet the relevant requirements relates to the 'demonstrability' of efforts to actively maintain route knowledge.</p>
25	Train driver	5.9.1	<p><i>[QUESTION] Why are trains still driving to Stavoren by 25-05-2011 even though the signalling does not meet legal requirements?</i></p> <p>Reply: There is an ongoing discussion between IVW and ProRail as to whether the situation at Stavoren is legally compliant with the relevant legislation. As the report indicates, however, limitations have been put in place with regard to driving without ATB monitoring, pending the outcome of these discussions.</p>
26	Train driver	6 Conclusion 1	<p><i>The conclusion that the accident was caused by inaccurate expectations and inadequate route knowledge is incorrect. The accident can be attributed to the fact that there was only a single invalid sign, which was barely visible. The only available sign was an individual approach marker without the required light signal; according to the relevant legislation, this is not a valid sign. There was also no braking sign despite the fact that one should have been installed. The kilometer signs were not in place or were illegible. If the appropriate signs had been in place, the accident would not have happened. For this reason, I regard the conclusion as featured under 1 incorrect. There was no valid sign to comply with, after all: an individual approach marker is not a valid sign. The failure to comply was caused by the incompleteness of the sign rather than its uncommonness. Appendix 4 of the Rail Traffic Regulations are clear on this issue, so why is this not mentioned in the conclusions? The signalling system is in contradiction with this requirement.</i></p> <p>Reply: The Safety Board does not agree with the criticism of this conclusion and refers to the analysis in section 5.2.</p>

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27	Train driver	6 Con- clu- sion 3.b	<p><i>I am not aware of any legislation that features a standard or criterion for route knowledge. To the best of my knowledge, this means I could not have acted in violation of such legislation and did not do so. According to the relevant standards, I had sufficient route knowledge as I had travelled the track section six months prior and also before that time. I have thus reached the following conclusion: Despite our repeated warnings, my colleagues and I were regularly put at risk by Spoorflex, BAM and ProRail. IVW granted permission to drive over various track sections without Automatic Train Control. IVW's comments that 'the train driver switched off the Automatic Train Control' make me wonder whether they know what they're talking about. After all, they were the ones to grant permission, even after repeated questions from my superior. All the parties involved knew about these dangerous, risky working methods, but they still assigned us to carry out the work. It's all too easy to say the pilot shouldn't have agreed to do the job, but I think it would be more logical to make sure these types of assignments and working methods aren't allowed in the first place, so that the responsibility lies with the right parties.</i></p> <p>Reply: The Safety Board agrees that efforts to identify the causes of this accident should not be limited to examining the actions of the train driver. The Safety Board expressly addresses the companies and inspectorates involved in this report. Regarding the comment on route knowledge, the Safety Board refers to the reply to response 24.</p>
28	Ministry of IenM and IVW	4.3	<p><i>Page 29 features an overview of the various government bodies' tasks and responsibilities. This clearly-defined division of roles is not applied consistently in all chapters of the report. The linkage of tasks and responsibilities (Monitoring and Policy) within the Ministry could be emphasised more clearly in accordance with page 29 of the report.</i></p> <p>Reply: The Safety Board feels the tasks and responsibilities of the government bodies involved have been described in sufficient detail.</p>
29	Ministry of IenM and IVW	5.5.3	<p><i>Regarding the practice of piloting, it should be pointed out that the Rail Traffic Regulations specify that the (piloting) train driver must be able to operate the emergency brake system and train horn. In this case, the train driver instructed the vehicle operator to start braking. The investigation fails to establish why the train driver did not activate the emergency brake. This would have helped establish a clear overview of the train driver's actions during the accident.</i></p> <p>Reply: The rail grinding train was designed to allow the train driver to operate the emergency brake and train horn. In this case, the brake system was operated by the vehicle operator because apparently he responded more quickly than the train driver.</p>
30	Ministry of IenM and IVW	Ap- pen- dix 1 and Ap- pen- dix 5	<p><i>IVW takes the view that the incident could have been prevented if the E-ATB system had been fitted with an ATB-NG module. Efforts to determine why no E-ATB module has yet been developed for ATB-NG track sections would considerably improve rail safety. No ATB-NG module has yet been developed for E-ATB. IVW takes the position that this point should be emphasised more clearly in the accident analysis.</i></p> <p>Reply:</p>

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			<p>The Safety Board recognises the importance of ATB monitoring (or compensatory measures) for self-propelled maintenance machines on ATB-NG track sections. This is clearly stated in the report. For the purposes of this investigation, however, the Safety Board has opted not to further examine why ATB-NG functionality was not incorporated in the development of ATB-E. This also applies to the question of why the (mandatory) use of ATB-E was not implemented until 2008. The Safety Board points out that IVW itself played a key coordinative role in this regard.</p>
31	Ministry of IenM and IVW	5.8.1	<p><i>During the interview with IVW's Director of Railway and Road Transport, it became clear that monitoring policy is moving towards a large degree of individual responsibility for market parties and a less interventionist government. IVW carries out its duties on the basis of (internal) priorities, conducting random checks and assessing the safety management system in terms of its capacity to control safety risks. This development has not been incorporated into the report.</i></p> <p>Reply: Also see response 35 and the relevant reply.</p>
32	Ministry of IenM and IVW	5.8.1	<p><i>The comment regarding ATB-NG compensatory measures in relation to the Zwolle incident (2007) is incorrect. The Zwolle incident took place on an ATB-EG track section with a rail grinding train that had not been fitted with an ATB module. The rail grinding train was later fitted with E-ATB.</i></p> <p>Reply: The connection between the incidents in Zwolle and Stavoren lies in the fact that there was no ATB monitoring in both cases. However, this was due to different causes: In Zwolle, the rail grinding train had not been fitted with ATB equipment. The train in Stavoren had been fitted with such equipment, but it was not compatible with the ATB equipment installed in the railway. In the view of the Safety Board, however, this does not diminish the 'Zwolle' incident's relevance in terms of 'Stavoren'.</p>
33	Ministry of IenM and IVW	5.9.1	<p><i>The comment to the effect that IVW took measures two days after the accident creates the impression that IVW was (too) late in taking action. This could have been phrased in a more nuanced manner, as IVW immediately recognised the similarity with previous incidents (communication, route knowledge and compliance with signals) upon conducting its site investigation (26 July 2010, 02:30). IVW and BAM Rail then held intensive consultations on 26 July regarding the use of rail grinding trains, resulting in a formal limitation of the safety certificate on 27 July 2010.</i></p> <p>Reply: The supplement 'two days after the accident' is not intended to suggest that the Safety Board feels IVW was (too) late in responding.</p>
34	Ministry of IenM and IVW	5.9.1	<p><i>In contradiction to the report, the assessment was conducted on the BAM Rail business management system, specifically the aspect of the Speno process and related (linked) processes, constituting an overall assessment of the entire Speno process. See the DeltaRail report: ISA report BMS audit, Processes and procedures regarding deployment of Speno train (DeltaRail/10/ 10543/002). The scope of the report does not exclude deployment of the train, see the DeltaRail report.</i></p> <p>Reply/handling: In the case of BAM Rail, we must distinguish between two separate risk analyses: one relates specifically to the grinding project, the other is a</p>

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			<p>general RI&E relating to the use of trains on railway lines that are in service. The rail grinding train transfer journeys are discussed in the general RI&E, which is not included in the assessment. The aforementioned information has been included in the report.</p>
35	Ministry of IenM and IVW	6 Conclusion 4	<p><i>Here the report concludes that supervision was indeed performed to ensure compliance with the Railways Act, however this focused mainly on the specific requirements with too little focus placed on the railway companies fulfilling their own responsibility or duty of care. The idea of monitoring one's own individual responsibility would seem rather paradoxical. This would defy the purpose of individual responsibility.</i></p> <p>Reply: According to the Safety Board, individual responsibility calls for the companies involved to assess which control measures will be needed to adequately manage existing safety risks and subsequently ensure that these measures are taken. As regards individual responsibility, the Safety Board underlines the great importance of adequate monitoring. This is clearly emphasised in the current investigation. The inspectorate's monitoring efforts should focus on safety management by railway operators, both on paper and in practice.</p>
36	Ministry of IenM and IVW	Appendix 1	<p><i>IVW claims that the signalling, superstructure and buffer stop at the end of the Stavoren line were not suited to (extremely) heavy trains and incapable of preventing incidents from spilling over into the surrounding area. According to IVW, these issues should be emphasised more clearly in the report in order to further improve railway safety.</i></p> <p>Reply: The Safety Board has opted to limit the scope of this investigation to the causes of such accidents, rather than focusing on minimising the effects.</p>
37	Ministry of IenM and IVW	Appendix 1 and Appendix 6	<p><i>In order to ensure accurate signposting and uniform signalling, it should be crucial to feature the specific characteristics of the approach marker locations, such as main line/regional line, single/double track, line speed, wrong track situation, border track section and end of line situation. This information would show that the approach marker at Stavoren is unique; normal single track, high-frequency train traffic, line speed and terminus. IVW is of the opinion that the signalling at Stavoren does not contribute to safe usage of the main line. This aspect should also be included in the analysis in order to ensure an optimal learning effect.</i></p> <p>Reply: The report states that the situation at Stavoren is unique in terms of its application of the marker, and this aspect was also dealt with in the analysis.</p>
38	Ministry of IenM and IVW	Appendix 6	<p><i>A reference to figure 22, the dual marker board warning signal 002E. This signal is no longer in use.</i></p> <p>Reply: The report states that the dual marker board warning signal is no longer in use.</p>

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39	ProRail	2.2	<p><i>The assumption that the rail grinding trains are leased by ProRail may be based on a misunderstanding. In this case, the rail grinding activities were contracted out to the BAM Rail-Speno consortium, with Speno acting as principal contractor and BAM Rail – in accordance with Article 11 of the applicable tendering guidelines (ARN2006) – acting as designated subcontractor.</i></p> <p>Reply: The outsourcing model is described/explained in chapters 4 and 5.</p>
40	ProRail	2.4	<p><i>According to this paragraph, the train driver turned his head in the direction of the rail grinding employee for a half minute, and could thus not see the railway section directly ahead. It also states that the rail grinding train passed the three marker signs during this half minute. ProRail thus concludes that the train driver could not have seen the markers. As a result, the signs should no longer be part of the causal structure of the incident.</i></p> <p>Reply: According to the draft text, the train driver entered into a discussion with the grinding train employee behind him during this period, turning his head (back) in order to talk to him. The text states that the train driver estimates this period lasted approximately half a minute. This should not be taken to mean that the train driver was looking over his shoulder for the duration of the entire period (approximately 30 seconds). According to the train driver's response after inspecting the report (see response 19), he was not looking over his shoulder for half a minute. He has stated that the period of 'about half a minute' referred to the length of his discussion, and that he spent mere seconds of this time looking over his shoulder. It should also be pointed out that the vehicle operator was familiar with the significance of a (yellow) light signal, not with that of a marker.</p>
41	ProRail	3.1	<p><i>'apply in this particular case.' It is not clear to ProRail which information serves as the basis for the Safety Board's assumption that the transfer journey is part of the rail grinding activities. This assumption is repeated in other parts of the report, and serves as a basis for various conclusions. For examples, see p. 22, p. 25, p. 27, p. 39, p. 42, p. 43, p. 50 and p. 54. The purpose of the transfer journey is to deliver the required machine to the workplace. The contractor is responsible for choosing the most appropriate means of transportation to the workplace. This can be road transport, or rail transport, either by means of a locomotive or a self-propelled work train. Transport over railway lines that are in service – whether by means of a normal passenger train or a work train - is conducted within the framework of the Railways Act, whereby the relationship between the railway company and the infrastructure manager is set out in an access agreement. This relationship must be clearly separated from the typical legal contracting relationship between commissioning party and contractor generally applied in railway work. Your Safety Board correctly characterises the rail grinding train used in the transfer journey as a 'normal train' on page 9 of the draft report, and applies the definition 'work train' in referring to use on out-of-service railway track during rail grinding activities. In its capacity as manager, ProRail has no authority over railway companies with which it enters into access agreements. It is thus not in a position to issue safety instructions if the rail traffic is being conducted through normal channels. The Railways Act and underlying EU legislation are intended to ensure the optimal harmonisation of requirements for rail vehicles and employees. In this context, it would be inappropriate if the infrastructure manager were</i></p>

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			<p><i>to circumvent the legislator in introducing additional requirements for rail traffic. In its managerial capacity, however, it must ensure railway safety in all areas that fall under the responsibility of the infrastructure manager. Nevertheless, the railway company is primarily responsible - by means of its operating licence and safety certificate - for ensuring the adequate safety of equipment used on the railway. The minister is responsible for ensuring compliance with the operating licence and safety certificate. In this case, it is of particular significance that the Dutch legislator has broadened – in deviation from guidelines 91/440 and 2001/14 - the Railways Act's definition of a railway company to include contractors using the railway. Like other railway companies that take part in rail traffic, they are required to have an operating licence issued by the minister and a safety certificate issued by IVW. As a result, they must take into account the specific risks of the special machines they use.</i></p> <p>Reply:</p> <p>The Safety Board's position that ProRail is also responsible for risk management on transfer journeys is based on the following two arguments:</p> <ol style="list-style-type: none"> 1. The transfer journeys were conducted as part of a rail grinding project commissioned by ProRail. In the view of the Safety Board, the commissioning party's responsibility is not limited to the rail grinding activities themselves, but also extends to the transportation of equipment and crew members. This is all the more applicable in this specific case, as the transfer journeys were not conducted with normal freight trains or passenger trains; the rail grinding train was travelling as a self-propelled maintenance machine and transported the crew members. 2. The transfer journeys took place over railway lines that were in service. In the view of the Safety Board, the adequate monitoring of safety risks during train journeys requires that all railway operators deploy the specific means at their disposal with optimal effectiveness. This also applies to the management of risks caused by other parties and/or risks requiring a joint approach. This conclusion is corroborated by the Railways Act and the management concession, which, in addition to requirements for the various system components (railway infrastructure, equipment, scheduled timetable and train traffic control), also specifically mention the responsibility for rail traffic safety. This responsibility (which applies to both transport operators and the infrastructure manager) is not limited to risks that are caused by the company in question or can be addressed through a joint effort. On the contrary: the railway operators must optimally contribute to the management of all risks and must hold the other companies involved accountable for their role in the process. <p>The Safety Board has issued statements on the division of responsibilities during railway accidents in several previous reports. These include:</p> <ul style="list-style-type: none"> • the report on the derailment of a freight train at Muiderpoort on 22-11-2008 (published in 2010), which focuses on the responsibilities of infrastructure managers and transport operators; • the report on the crash between two metro cars in Amsterdam on 20-02-2010 (published in 2011), which focuses on the responsibilities of the commissioning party. <p>The Safety Board would also like to refer to its previous reports on the specially-themed study into the safety of passenger transport with hydrofoils on the North Sea channel and the River IJ (published in 2009) and the explosion of a natural gas condensate tank at NAM in Warffum (published in 2007). These reports also focus in depth on the responsibilities of the commissioning party.</p>

No.	Party	Section	Response and reply
			<p>As regards ProRail's position that it has no authority to mandate Speno and/or BAM Rail to take (additional) control measures, the Safety Board also points out that ProRail is now – since this accident - demanding that railway contractors (including BAM Rail) limit speeds to 40 km/hour when using maintenance machines without ATB-NG on ATB-NG route sections.</p>
42	ProRail	3.2.1	<p><i>Your Safety Board takes the position that the Safety at Work Standards Framework (NVW) (see section 3.2.1) applies to transfer journeys. 'The NVW states that the deployment of people and equipment as well as the supply and removal thereof fall under the scope of the NVW. This literally means that the NVW applies to transfer journeys carried out by rail grinding trains and other maintenance machinery.'</i> However, the above quote is an incorrect or incomplete representation of the NVW. The literal wording of the NVW to which this section refers is as follows: "The NVW regulates the relationship and responsibilities regarding the safety of these activities, including the transport and deployment of people, equipment and materials." The NVW defines the term 'activities' as follows: "Activities – carrying out work on the infrastructure or other work in or near the track that is not part of the normal transportation process." Contrary to what the Safety Board suggests in the draft report, responsibility for equipment or operating staff outside of the workplace cannot be directly derived from the NVW. Transfer journeys are part of the normal transportation process. This normal transportation process is explicitly excluded in the NVW. This is further supported by the following stipulation in Article 8.1 of the VVW, which is based on the NVW: "Any rail-bound vehicle driving along railway lines that are in service (for purposes such as transporting equipment) must meet the same requirements as those applied to transport operators. Users of such equipment, machines and tools must be able to demonstrate that these requirements have been met by means of formal statements or a non-objection certificate." This means that transfer journeys are only subject to the requirements applied to transport operators. In our view, this clearly differs from the division of responsibilities for rail-bound vehicles and operating staff on out-of-service track, as referred to in the same article of the VVW.</p> <p>Reply/handling: Point 5.4.1 of the report states that the existing legislation is not clear on this point. This conclusion, along with a reference to section 5.4.1 has been added to the relevant passage in section 3.2.1.</p>
43	ProRail	4.1	<p><i>ProRail does not agree with the Safety Board's conclusion that the infrastructure manager and transport operator are responsible for managing safety risks on train journeys. Another key party also holds responsibility for train journeys, namely IVW. IVW issued the rail grinding train in question with a deployment certificate after having conducted an admission inspection. The admission of equipment to the railway network is conducted under the auspices of IVW, not the infrastructure manager. The infrastructure manager is legally required to admit all equipment issued with a deployment certificate by IVW to its railway tracks. IVW will assess whether a rail vehicle can be safely deployed. The railway company must then specify how extraordinary risks are to be addressed in its safety system, which will then be verified by IVW by means of the safety certificate. As infrastructure manager, ProRail will make available the required capacity to ensure safe use of the track, which will also be monitored by IVW. The safety of train journeys is a shared responsibility borne by multiple parties, not just the infrastructure manager and the</i></p>

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			<p><i>transport operator.</i></p> <p>Reply: See the comments regarding the division of responsibilities in the reply to response 41.</p>
44	ProRail	4.1	<p><i>In our view, ProRail cannot be regarded as the commissioning party responsible for the transfer journey, and is thus not subject to the obligations ensuing from the Working Conditions Act as regards construction projects (Chapter 2, Section 5 of the Working Conditions Decree). As a consequence, ProRail does not accept your Safety Board's conclusion on p. 28 of the draft report, which states that the activities at the time consisted of operating a train journey and that ProRail is thus responsible in its capacity as both infrastructure manager and commissioning party. It follows that ProRail cannot concur with your Safety Board's conclusion that it was responsible – in its capacity as commissioning party – for preparing a Health & Safety Plan design for the transfer journey on the basis of a contracting agreement. The specific risks involved in transfer journeys with rail grinding trains do not justify the conclusion that ProRail – in its capacity as prime contractor – was responsible for including these risks in the Health & Safety Plan Design. The commissioning party is only under an obligation to prepare a Health & Safety Plan Design in the case of activities ensuing directly from a contracting agreement for the realisation of a construction at the work site. For example, the party commissioning a contractor is not obliged to focus on the specific risks involved in driving cement mixers on public roads from the cement plant to the construction site when preparing a Health & Safety Plan Design for a concrete construction project. The law only requires the commissioning party's Health & Safety Plan to focus on traffic within the construction site. The specific risks involved in driving work trains on railway lines that are in service, such as the lack of ATB monitoring, passengers in the cabin, piloting and knowledge of the route on secondary lines, are aspects that should reasonably have been addressed in the railway company's operating licence and safety certificate.</i></p> <p>Reply: The Safety Board agrees with ProRail that the relevant transport operator is responsible for managing safety risks during train journeys over railway lines that are in service. However – according to the reply to response 41 – the Safety Board feels this responsibility should also be borne by ProRail. As a consequence of this position, the Safety Board takes the view that the Health & Safety Plan should also include transfer journeys. The Safety Board points out that the Health & Safety Inspectorate (see response 42) has expressed surprise that ProRail did not include the transfer journeys in its Health & Safety Plan, and that none of the parties addressed this omission.</p>
45	ProRail	5.2.2	<p><i>It is not clear to ProRail on what basis the Safety Board concludes that inattentional blindness may have been involved (i.e., failing to see something because one is looking for something else). According to page 14, the train driver turned his head away from the rail track ahead of the train for half a minute. One could thus conclude that the train driver was not looking for a speed reduction sign outside at the time. ProRail would like to learn the Safety Board's views on this point.</i></p> <p>Reply: According to the train driver's statements, he was looking for speed reduction signs rather than a marker – also due to his expectations based</p>

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			<p>the drawing. This cannot be negated by the fact that he was distracted for a short period of time while consulting the documentation and conferring with the grinding train crew member. The train driver also denies - also see response 40 – that his head was turned for about half a minute; he claims this only lasted a few seconds at most.</p>
46	ProRail	5.2.2	<p><i>ProRail does not know on the basis of which frame of reference the Safety Board concludes that the marker was "briefly" visible. If we assume that the first – reflective – sign is visible from 100 metres in a rural environment, the driver would have 240 metres to notice the three markers (which are spaced 70 metres apart). At a speed of 100 km/hour, the markers would have been visible for 8.64 seconds. Even though this is less than the ten-second period mentioned in the draft report, ProRail does not regard such an observation period as uncommon when driving a vehicle at this speed. ProRail thus requests that the Safety Board further substantiate or reconsider the qualification "briefly".</i></p> <p>Reply: The qualification "briefly and poorly visible" refers to the fact that a non-illuminated marker is considerably less visible than a light signal when approached during darkness. At an approach speed of approx. 95 km/hour (as was the case in this instance), a light signal will be visible for several dozen seconds, whereas a marker will be visible for less than ten seconds.</p>
47	ProRail	5.2.2	<p><i>ProRail would like to know on which basis the Safety Board concludes that the train driver had difficulty determining his train position. The following aspects are important in this regard: 1) Page 14 states that the train driver knew there would be a speed reduction sign after passing the level crossing at Kooijweg. He thought he recognised the level crossing. Based on this information, ProRail concludes that the train driver did know his location. 2) The same page also states that the train driver continued at a speed of 95 km/h. In our view, the train driver would not have continued driving at such a high speed if he did not know his position. ProRail would expect the train driver to reduce his train's speed in order to be on the safe side. 3) On what basis does the Safety Board conclude that the existing and legible hectometre and kilometre signs were inadequate as a means of determining the train's position?</i></p> <p>Reply: 1) The train driver knew approximately where he was and expected to see a speed reduction sign. When he saw no such sign, he became confused. The train driver has stated that he then assumed he was at the previous level crossing. 2) The train driver has stated that he was looking for the speed reduction sign. Based on the fact that he had not yet located the sign, it would not be illogical for him to maintain the train's speed at that point. 3) As outlined in Appendix 3 'Technical Investigation', an inspection conducted shortly after the accident determined that the sign at km 49.5 was turned approx. 45 degrees (and would thus be difficult to read from the cabin), while the sign at km 50.0 could not be read at all as it had been turned 90 degrees from its normal position.</p>
48	ProRail	5.2.3	<p><i>ProRail would like the Safety Board to reconsider its subconclusion regarding the marker on the basis of the previous comments on sections 5.2.1 and 5.2.2. The subconclusions also state that the marker, in addition to being only briefly visible, was also poorly visible. ProRail feels this claim is unsubstantiated and does not concur with this qualification.</i></p>

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			<p>Reply: Also see the replies to responses 40 and 46.</p>
49	ProRail	5.3.3	<p><i>According to ProRail, the subconclusion that errors in drawings and adjustments to work schedules are not uncommon is unsubstantiated.</i></p> <p>Reply: According to the information provided by ProRail as part of the investigation, ProRail conducted its own investigation in response to the accident at Stavoren in order to determine whether the drawing error was a one-off incident or part of a broader pattern. The latter option turned out to be true. According to various interviews with employees of Speno, BAM Rail and Spoorflex (including an interview with the train driver involved), 'deviations from the work schedule' were a common occurrence. This state of affairs was also confirmed in an interview with a ProRail employee.</p>
50	ProRail	5.4.1	<p><i>ProRail does not understand your Safety Board's comment that the situation regarding responsibilities for the transfer journey would be different if the transport of people and equipment were conducted with normal trains. This situation would be no different in the sense that it would also involve rail vehicles for which the railway company has been allocated capacity by the infrastructure manager with which it had entered into an access agreement. The legislation does thus not distinguish between rail companies that deploy passenger, goods or work trains. For this reason, ProRail does not understand why the Safety Board applies this distinction nonetheless on p. 39 of the draft report. In ProRail's view, the differences in terms of the vehicle's risk profile cannot justify such a distinction. After all, the railway company is responsible for addressing these specific risks in its operating licence and safety certificate. Different rail vehicles have different risk profiles, but this does not justify redistributing responsibilities between the infrastructure manager and railway company in a manner never envisaged by the legislator. The Railways Act and underlying EU legislation are intended to ensure the optimal harmonisation of requirements for rail vehicles and employees. In this context, it would be inappropriate if the infrastructure manager were to circumvent the legislator by introducing additional requirements for rail traffic.</i></p> <p>Reply: Normal train journeys are also conducted with goods or passenger trains that are not transporting a maintenance machine or maintenance crew. However, there is a direct relationship between train journeys with self-propelled maintenance machines (such as the journey to Stavoren) and the railway work in question. This offers the party responsible for commissioning this work (ProRail in this case) additional options in terms of influencing risk management during these journeys. Also see the comments regarding the division of responsibilities in the reply to response 41.</p>
51	ProRail	5.5.1	<p><i>According to the Safety Board, a marker is an uncommon signal and is applied in support of light signals. ProRail does not concur with this conclusion. Approach markers are a form of signal described in appendix 4 of the Rail Traffic Regulations. This signal instructs the train driver to limit the train's speed to 40 km/h and – depending on visibility and destination – to continue at a speed that will allow for the train to be brought to a standstill before the next stop sign. The fact that signal 249a has been featured in chapter 3, appendix 4 of the Rail Traffic Regulations</i></p>

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			<p><i>under the title "Supplementary signals at light signals" does not justify the conclusion that signal 249a always serves as an advance warning for a light signal. The characteristic named in the title of the chapter does not imply that the subsequent signs listed are required only to meet the terms of this characteristic. In this case the marker served as a warning signal for an end of line sign (signal 513) that was attached to the buffer stop. For example, see the explanations for signals 249, 251 and 251 a/II, which make explicit mention of light signals, advance warning signals or P signals (all of which are light signals) whereas the explanation for signal 249a only refers to a stop signal. These signals can also consist of signs. According to ProRail, the marker serves as a clear instruction for the train driver. Moreover, the situation at Stavoren is in accordance with internal ProRail requirements for visibility and braking distances.</i></p> <p>Reply/handling: As the report states, the regulations do not clearly or explicitly specify in which situations markers may be applied. For this reason, the Safety Board feels it would be inappropriate to intervene in the debate on whether or not use of the marker at Stavoren was compliant with the relevant legislation. However, the Safety Board does take the position that – for the purposes of ensuring safety at Stavoren - there should have been a light signal instead of (or in combination with) a marker. The Safety Board also notes that the application of (or combination with) a light signal would also – as outlined in appendix 6 – have been logical from a historical perspective. The aforementioned is further explained in the relevant section.</p>
52	ProRail	5.5.1	<p><i>See previous comments on sections 5.2.2 , 5.2.3 and 5.5.1 in connection with the brief and poor visibility of the marker.</i></p> <p>Reply: See the reply to response 46.</p>
53	ProRail	5.5.3	<p><i>ProRail does not concur with the Safety Board's position that ProRail could and should have exerted influence as regards the practice of piloting by the driver. The practice of piloting by a train driver is allowed under current legislation. As infrastructure manager, ProRail is not in a position to impose additional requirements on a railway company regarding the operation of admitted equipment. The Railways Act and underlying EU legislation is intended to ensure the optimal harmonisation of requirements for rail vehicles and employees. In this context, it would be inappropriate if the infrastructure manager were to circumvent the legislator by introducing additional requirements for rail traffic. As regards the transfer journey, there was no contractual relationship that could have served as a basis for issuing such an instruction. In the case of this journey, piloting was necessary because Speno's insurer refused to allow the rail grinding train to be driven by a BAM train driver. This circumstance is within the Speno's sphere of influence, not that of ProRail.</i></p> <p>Reply: See the comments regarding the division of responsibilities in the reply to responses 41 and 50.</p>
54	ProRail	5.5.6	<p><i>As regards the deviating work schedule for Stavoren, ProRail regards the following factors to be of relevance:</i></p> <p>a) <i>As regards train traffic controllers: According to ProRail's guidelines,</i></p>

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			<p><i>the escalation procedure should only be followed if there are changes regarding the nature of the activities, the workplace safety level, the precise designation of the workplace or the nature of the safety measures implemented by the Workplace Safety Leader. The assessment by the train traffic controller in Stavoren concluding that no changes have been made in these areas cannot be qualified as incorrect or illogical.</i></p> <p><i>b) As regards the contractor: According to ProRail, there was no pressure to meet production deadlines in Stavoren. There was more than enough time to carry out the necessary work. This is corroborated by the internal accident investigation (section 3.3) conducted by ProRail, which found that the rail grinding activities on the Leeuwarden – Stavoren route section only took 2.75 hours of the available 6.5 hours to complete. Finally, the internal ProRail incident investigation (section 2.2 and 3.3) demonstrated that the order of the activities was changed due to the lack of an appropriate workplace security switch. This corroborates the conclusion that pressure to meet production deadlines was not a factor. As regards deviation from the Stavoren work schedule, ProRail would like the investigation report to avoid creating the impression that a) the train traffic controller did not adopt a critical attitude and b) the contractor was put under pressure.</i></p> <p>Reply/handling:</p> <p>a) It is true that the escalation procedure outlined in the ProRail guidelines only relates to adjustment of the Workplace Safety Instruction, which did not take place with respect to the transfer journey in question. The text has been duly adjusted.</p> <p>b) Both BAM Rail and Speno have claimed the work schedule (see the reply to response 55) was adjusted so frequently in order to meet the production deadlines set by ProRail. Also see response 12 by BAM Rail. However, the Safety Board does not feel it is justified to suggest that such time constraints played any role during the transfer journey to Stavoren.</p>
55	ProRail	5.5.6	<p><i>According to the Safety Board, ProRail concludes that there has been a growing trend over the years to diverge from work plans during work on the railways, with staff often failing to apply the mandatory escalation procedure. These practices were especially common during rail grinding activities, and were actually regarded as an available option to reach productivity targets. ProRail does not concur with this conclusion and would like to know upon which information the Safety Board bases its statements. According to ProRail, the Safety Board's statement that ProRail allowed other interests such as production to take precedence over its own safety guidelines is questionable. In ProRail's view, the Safety Board's Conclusion 3. b (g) that no efforts were made to follow the escalation procedure when deviating from the work schedules, is not in order.</i></p> <p>Reply/handling:</p> <p>According to various interviews with employees of Speno, BAM Rail and Spoorflex (including an interview with the train driver involved) 'deviations from the work schedule' were a common occurrence. This state of affairs was also confirmed in an interview with a ProRail employee.</p> <p>The deviation/adjustments concerned the work schedules rather than the Workplace Safety Instruction. The text has been duly adjusted.</p>
56	ProRail	5.5.6	<p><i>The Safety Board states that the practice of driving with filled water tanks was not allowed under the terms of the deployment certificate. The Board</i></p>

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			<p><i>then goes on to state that this factor was not included in the investigation as it did not play a significant role in terms of the causes or relevant facts. According to ProRail, the deployment certificate did allow for the train to drive with full water tanks, but at a speed of no higher than 80 km/h. In ProRail's view, the impact of the crash would have been less severe at a lower speed. A speed of 80 km/h would also extend the period during which the markers were visible from 8.64 seconds (at 100km/uur) to 10.8 seconds. ProRail requests that the Safety Board consider supplementing the report with a new section on this aspect.</i></p> <p>Reply: The Safety Board does not deny that the impact speed would have been lower and the marker would have been visible for a longer period of time if the rail grinding train had been travelling at a speed of 80 km/h instead of approx. 95 km/h. However, the Safety Board does not feel it is likely that a speed of 80 km/h would have ensured that the driver noticed or recognised the marker and/or significantly reduced the amount of damage caused by the accident.</p>
57	ProRail	5.5.7	<p><i>The subconclusion that a light signal should have been applied instead of a marker does not seem consistent with the comments on page 41, which suggest that current legislation is unclear on the application of markers.</i></p> <p>Reply: See the reply to response 51.</p>
58	ProRail	5.7.2	<p><i>The safety agreements between ProRail, Speno and BAM Rail extended exclusively to the rail grinding activities. This is entirely logical if we take into account that the transfer journeys played no part in the contractual relationship between ProRail and the other companies. As regards transfer journeys, the relationship between ProRail and BAM Rail is enshrined in the access agreement with BAM Rail rather than the (framework) rail grinding agreement.</i></p> <p>Reply: See the comments regarding the division of responsibilities in the reply to response 41.</p>
59	ProRail	5.7.4	<p><i>According to ProRail, the conclusion that the transfer journeys represented a 'blind spot' contradicts the basic principle that all rail traffic – including transfer journeys – and the safety thereof is covered by the legislation and responsibilities outlined in the Railways Act. The Safety Board suggests that BAM Rail was not in a position to make independent decisions regarding the installation of ATB-NG in rail grinding trains, driving at lower speeds or the towing of rail grinding trains. Even if this were the case – although ProRail feels BAM Rail certainly could have exerted influence in this regard – it does not exempt the railway company from responsibility over the safe use of its equipment and machines.</i></p> <p>Reply: The term 'blind spot' does not refer to the legislation itself or the division of responsibilities as a result thereof. It relates to the various parties' subsequent interpretation and application in the form of mutual agreements, certification and monitoring. Also see the reply to response 41 (regarding the division of responsibilities) and response 60 (regarding ProRail's position on additional control measures).</p>

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60	ProRail	5.7.4	<p><i>Spoorflex and BAM Rail claim they were not able to convince ProRail and/or Speno to take additional control measures in the area of ATB-NG. ProRail has no knowledge of any efforts to this end.</i></p> <p>Reply: According to interviews with BAM Rail (3) and Spoorflex (2) employees, both companies made several efforts to address the lack of ATB monitoring on ATB-NG track sections. BAM Rail and other parties consulted/corresponded on this issue with IVW. Both companies have indicated that they did not feel supported by ProRail and Speno in this regard. According to BAM Rail, the consultative structure surrounding the rail grinding project offered insufficient room to discuss or jointly address safety problems. In its reply to the draft report, BAM Rail also commented on this issue (see response 15).</p>
61	ProRail	6	<p><i>ProRail requests that the Safety Board reconsider its conclusions based on previous comments.</i></p> <p>Reply: See the replies to the relevant responses.</p>
62	ProRail	Appendix 5	<p><i>ATB-EG will not prevent stop signal overruns, but was designed to determine the 'train driver's competency'. ATB-EG is designed for the purpose of continuous speed monitoring, unlike its foreign counterparts (Krokodil, PZB) which were designed to prevent stop signal overruns.</i></p> <p>Reply: This response coincides with the facts outlined in appendix 5.</p>
63	SPENO	2.2.2	<p><i>Speno points out that the reference to the available parking stands and transfer journeys does not provide a full and accurate overview of the situation. According to the agreement, Speno should have access to six parking stands. However, there were only three available parking stands at the time. This number has since been expanded to a total of four. As a result, the transfer journeys were longer than originally planned.</i></p> <p>Reply: The Safety Board has taken note of the addition of a fourth parking stand.</p>
64	SPENO	2.2.4	<p><i>Speno emphatically contests the factual description of events in the cabin preceding the accident. According to our own knowledge and the statements of the Speno crew members present in the rail grinder train during the journey, the course of events differs from what is described in the report. See, in particular, the comments / supplements below (response 91), which should be deemed to have been inserted (and repeated) here. Speno also points to the official reports of police interviews with the Speno employees involved, containing statements on the course of events.</i></p> <p>Reply: The description of events in the cabin is based on the interviews held with those involved (including the Speno employees) shortly after the accident, and the interviews with the train driver and the Workplace Safety Leader. The comments (also see response 67) boil down to the fact that according to Speno there were no problems in the communication between the train driver and the rail grinding employee and the train driver was not distracted. See the reply to response 67.</p>
65	SPENO	2.2.4	<p><i>No mention is made of the fact that the piloting train driver issued the</i></p>

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			<p><i>instruction to drive on to a final station, which was located beyond the site where rail grinding activities were set to begin. The train would then drive back from that point. However, there was no such station. The track ended. This underlines a lack of route knowledge, or at the very least a (human) error by the piloting train driver. This relevant factual circumstance is featured in the police statement by the Speno employee in the cabin, and the statement by the Speno employee in the back of the train who made an inquiry via the intercom after having noticed (signalling) colleagues along the track at a level crossing, leading him to assume that the train might have reached its final destination.</i></p> <p>Reply: The final station was Stavoren. This station is indeed located after the location where rail grinding activities were set to begin. This information is featured in the text.</p>
66	SPENO	5.2.1	<p><i>In Speno's view, the heading 'signal compliance by the train driver' should be supplemented with a reference to the fact that the marker was not illuminated, or at the very least explaining that this signal is intended as a supplement to a light signal and is generally applied in this capacity. There was no such light signal. After all, this represents a key circumstance. (Also see chapter 5.5.1)</i></p> <p>Reply: These issues have been dealt with under 5.2.2 and 5.5.1.</p>
67	SPENO	5.2.2	<p><i>According to the report, five factors are significant in terms of explaining why the train driver failed to comply with the signalling system. According to Speno, the key factor lies in the fact that the train driver was distracted from his driving duties during this period, and more specifically in the explanation for this fact, as outlined in 'passengers in the cabin' and 'communication problems due to multiple languages'.</i></p> <p><i>'Passengers in the cabin: As the rail grinder approached the scene of the accident, the crew member and train driver in the front cabin engaged in a conversation. As a part of this conversation, the train driver consulted some documentation. The train driver has stated that this third person (who was seated behind him) was asking questions and that he turned to face him while answering. As a result, he was temporarily unable to see the railway track ahead of the train.'</i></p> <p><i>'Communication problems due to multiple languages: The Italian rail grinding train crew did not speak Dutch, and had limited command of English and German. As a result, the Dutch train driver had to communicate with them in a language that was not his own, and continually check whether they truly understood what had been discussed. This put more mental strain on the train driver, and distracted him from the signals.'</i> These conclusions in the report suggest – entirely incorrectly – that the accident was caused by the presence of Speno employees in the cabin and problems related to their lack of language skills, or at the very least that these two factors are underlying causes of the accident. Partly based on its own knowledge of the course of events, Speno emphatically contests and denies these conclusions; based on (police) statements of the Speno employees in the cabin, these statements can be proven inaccurate. According to the Speno employee responsible for operating the train during the journey, he had no problems communicating clearly with the train driver in German. The other grinding train employee travelling in the (small) cabin in the rear has also stated that there were no communication problems, that all crew members understood one another clearly, had no problem hearing one another and that everything went according to plan. It should be pointed</p>

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			<p><i>out in this regard that the vehicle operator drove the train in a straight line during this entire period. Speno requests that the report emphasise that communication was thus limited to a small number of instructions, mainly in terms of the appropriate speed and the need to brake. Instruction sheets on communication were also prepared and made available to the train crew. According to the Speno employees on the train, there were no discussions upon approaching the site of the accident, nor was the driver distracted. The piloting train driver had good eyesight.</i></p> <p>Reply: In essence, the relevant text section states that the (Dutch) train driver was put under additional mental strain due to the fact that he was forced to communicate in English and German, and could thus devote less attention to the signals. After due consideration, the term 'communication problems' in the paragraph title has been replaced by 'use of multiple languages'.</p>
68	SPENO	General	<p><i>According to Speno, the report does not make sufficient distinction between the Italian rail grinding train operator (working for Speno) and the Dutch piloting train driver (hired in from Spoorflex by BAM) under whose instructions and responsibility the vehicle operator was operating the train. Speno feels this distinction should be expressed more clearly and consistently, in order to rule out any ambiguities or misunderstandings. This could be achieved through use of the term: 'piloting train driver'.</i></p> <p>Reply: The report consistently distinguishes between the vehicle operator and train driver. The addition 'piloting' has been omitted in aid of readability.</p>
69	SPENO	5.2.2	<p><i>For the sake of clarity, 'Compensatory measures were not explicitly required and/or mandated' should be supplemented by the comment that everything was technically in order and in accordance with the relevant legislation. According to IVW, all (self-propelled) maintenance machine must be fitted with an ATB-E system: this was the case. Speno feels mention should also be made of the fact that the ATB-E system was purchased following an instruction from IWW several years (approx. two) prior; at the time, IVW had not mandated the use of ATB-NG (also see chapter 5.6.3 on page 47, final bullet point). Speno is currently barred from using ATB-E on several track sections without a locomotive, as they are not compatible with the ATB-E system. This is partly due to ProRail's new procedures for ATB switch off sections.</i></p> <p>Reply: The Safety Board regards the suggested supplement as unnecessary.</p>
70	SPENO	5.4.1	<p><i>The report does not (clearly) reflect the fact that Speno is committed to railway safety in the broader sense and – more specifically – to the safety of rail grinding activities, and has devoted attention to and embraced this aspect in contractual agreements. Within the contractual relationship between Speno and BAM, the responsibility and liability for adherence to statutory (safety) guidelines and general railway safety during railway work is allocated to BAM. Each party has its own individual responsibility / tasks in order to ensure (railway) safety. Speno focuses on its specialism, the rail grinding activities; Speno has (rail) grinding trains and specialised staff to operate them. Nationally-oriented projects, including infrastructure/transportation processes – and more specifically national (safety) requirements – are left up to the local contract parties</i></p>

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			<p><i>with which it works. After all, Speno operates around the world and local circumstances and (safety) requirements may differ. In this respect, Speno depends on the parties (: railway companies) with which it cooperates in the relevant country. In the Netherlands, this expertise is provided by BAM. Speno cooperates exclusively with BAM, which should be regarded as a high-quality partner that possesses all the required expertise and certificates. Tasks in the area of safety management are outsourced to BAM, which implements the necessary measures in consultation with Speno. The report does not sufficiently underline this well-considered organisational decision to outsource safety management to a suitable, high-quality local partner; as far as Speno's is concerned, this arrangement is intended – and adequate - to ensure compliance with its duty of care. Health and safety management with regard to Speno's own equipment/materials and the actual rail grinding process, is conducted in house. Speno also refers to the report of the interview on 9 December 2010, which contains extensive statements on this aspect.</i></p> <p>Reply: The report describes Speno's decision to outsource the organisation and execution of rail grinding train transfer journeys to BAM Rail, and outlines its rationale for doing so. However, the Safety Board also points out that although this decision to outsource may mean BAM Rail is responsible for risk management on the relevant journeys, it does not discharge Speno (in its capacity as principal contractor) of its joint responsibility for this aspect.</p>
71	SPENO	5.6.1	<p><i>Speno feels the report overemphasises previous accidents involving Speno, especially the incident in Zwolle. Although there have been several accidents in the past involving stop sign overruns – seemingly involving the same factors as the Stavoren accident – the report exclusively mentions incidents involving Speno. This (unintentionally) creates a false impression. In Speno's view, this creates the impression that the cause of the accident in Stavoren and previous incidents can be attributed to Speno. Speno also contests the conclusion that these previous accidents are comparable and were investigated in a similar manner. For this reason alone, the comparison in the report is inaccurate. In short, Speno contests the summary of 'comparable (near) accidents' and the resulting (sub)conclusions. Speno would prefer to see a more balanced representation of events.</i></p> <p>Reply: The overview of comparable incidents featured in this report has been consciously limited to incidents involving self-propelled maintenance machines and stop sign overruns during transfer journeys over railway lines that are in service. The problem of stop sign overruns is dealt with in a broader context in other Safety Board investigations/reports.</p>
72	SPENO	5.6.2	<p><i>According to the grinding train crew member travelling in the cabin, the piloting train driver was startled upon approaching the site of the accident. According to his observations, the grinding train operator activated the emergency brake when the piloting train driver failed to do so. At that time, the piloting train driver was already located in the rear of the cabin. This corroborates with the statement made by the grinding train operator. The source of the statements in the report is unclear. Speno would like to see further transparency and explanation in this regard. More specifically, Speno is referring to the police interviews in which Speno employees made various statements about the factual course of events. The report incorrectly presents these statements as undisputable facts. In Speno's view, these sections are suggestive, or - at</i></p>

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			<p><i>the very least – insufficiently substantiated with facts. They should thus be adjusted, or at least Speno requests that they be suitably nuanced in the report. The assumption that there were communication problems should also be scrapped from the remaining section. There are no/insufficient grounds to justify this assumption. For example, see the section under 5.6.2 on page 47 and onwards. According to this section, the communication problems have not been addressed.</i></p> <p>Reply/handling: With regard to the safety problems involved in the incident at Halfweg, the Safety Board – as stated in the report – based its conclusions on the relevant IVW report. It is true that the communication problems underlying the Halfweg incident did not occur at Stavoren. The text has been duly adjusted.</p>
73	SPENO	5.7.4	<p><i>With regard to risk management of transfer journeys and risk management in a broader sense (with regard to its contractual obligations and outsourcing procedures), Speno feels the report does not sufficiently underline its position that all legal requirements have been met and that Speno has adequately met its obligations by assigning safety management to a high-quality partner (BAM).</i></p> <p>Reply: The Safety Board is aware that Speno feels it has met its legal obligations and - by outsourcing safety aspects to BAM Rail – that it has met its duty to ensure railway safety. As the report outlines, however, the Safety Board feels Speno has not done enough in particular to ensure the latter. Also see the reply to response 41 with regard to the commissioning party's responsibilities.</p>
74	SPENO	5.7.4	<p><i>Speno contests the statement that Spoorflex and BAM Rail were unable to convince ProRail and/or Speno that the transfer journeys required additional control measures. If this were the case, the parties should have addressed Speno, which they failed to do. Speno thus requests that the Safety Board discloses the source of this information.</i></p> <p>Reply: See the reply to response 60.</p>
75	Ministry of SZW and AI	Appendix 5	<p><i>[QUESTION] It was known at the time that the ATB systems were incompatible. The train operator and/or piloting train driver should have been aware of this fact. Did the Workplace Safety Instruction or Health & Safety Plan state that this applied to the situation of the train operator and/or piloting train driver?</i></p> <p>Reply: The train driver did know that the Automatic Train Control system on the relevant track section was not compatible with the rail grinding train. No information on this subject was included in the Workplace Safety Instruction or Health & Safety Plan. As the report outlines, this was due to the fact that these documents did not extend to transfer journeys.</p>

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76	Ministry of SZW and AI	Appendix 5	<p><i>[QUESTION] It was known in advance that there were ATB switch off sections along the route. The train operator and/or piloting train driver should have been aware of this fact. Did the train operator and/or piloting train driver know that there was an ATB switch off section on their route and duly deactivate their system (was this information featured in the Workplace Safety Instruction or Health & Safety Plan)?</i></p> <p>Reply: The train driver was aware that the system had to be deactivated on these sections and knew that there would thus be no speed limit. No information on this subject was included in the Workplace Safety Instruction or Health & Safety Plan. As the report outlines, this was due to the fact that these documents did not extend to transfer journeys.</p>
77	Ministry of SZW and AI	6	<p><i>It seems that ProRail – in its capacity as commissioning party – was not actively involved with the Health & Safety design plan. However, the conclusions make no mention of this fact.</i></p> <p>Reply: ProRail was involved in the Health & Safety Plan, but did not include the transfer journeys. This information has been incorporated into conclusion 3.a.</p>
78	Ministry of SZW and AI	6	<p><i>It is remarkable that all parties that worked on or inspected the Health & Safety Plan failed to include the transfer journeys.</i></p> <p>Reply: The Safety Board agrees with this comment, and has included it in the report.</p>
79	Ministry of SZW and AI	6	<p><i>Why is there still no RI&E for infrastructure (apparently, such a document is set to be prepared now). This means there is still no clear overview of all non-standard signs, missing posts, poorly visible signals, etc., despite all the previous stop sign overruns.</i></p> <p>Reply: ProRail has an RI&E which also deals with the prevention of stop sign overruns. The Safety Board has not further assessed this aspect as part of the investigation.</p>