

5. How mature is the rail industry in managing occupational health?

Key findings: Rail industry leadership and awareness on health

- Leadership initiatives on health, co-ordinated by RSSB for mainline rail, have been considered, collaborative, and positive. Extending RSSB's remit to include health and wellbeing; development of the Industry Roadmap; and delivery of the first annual industry health conference in 2014, shows real leadership, commitment, and ambition.
- We want to see recent efforts sustained across all parts of the industry and an escalation in pace to deliver key work streams in the Industry Roadmap. This will allow rail businesses to reap the benefits from improved health and engagement in their workers.
- The vision and direction provided in the Roadmap needs to be reflected in individual company health strategies and supported by visible board level commitment on health.
- We are looking to the Rail Delivery Group to actively support the mainline industry's efforts to secure progress in improving employee health and wellbeing.
- We want to see more rail companies deliver on commitments to treat health like safety by publicly reporting on worker health against quantitative targets. We would also encourage more rail companies to show public commitment and leadership on health by signing up to voluntary health pledges, in particular the Department of Health Public Health Responsibility (PHR) Deal⁴³ and the Institution of Occupational Safety and Health (IOSH) No Time to Lose occupational cancer campaign³⁶.
- Emerging evidence of greater monitoring of health performance indicators and metrics by rail companies is encouraging, and should become the industry norm. We want to see the industry develop a common set of health performance indicators, for example by developing ORR's proposal to RSSB for a health metrics dashboard.
- Freight, tram, and heritage operators have been less visible in sharing good practice on health and wellbeing initiatives than others. We would encourage these companies to share with their peers and with wider industry what works.
- We would encourage rail companies and trade unions to help us to raise awareness on health even further by cascading ORR health guidance, including our quarterly

³⁶ IOSH No Time to Lose: <http://www.iosh.co.uk/NTTL/Home/About-NTTL.aspx>

health programme updates and health e-bulletins, within their business and providing links to ORR's health pages on their own websites and intranet pages.

Industry leadership on health

- 5.1 ORR continues to call for stronger, more visible leadership on health by railway companies. The influential 2011 McNulty report recognised the need for the rail industry to 'increase the focus on occupational health, which will reduce levels of sickness and absenteeism as well as encouraging a healthier workforce'.
- 5.2 Industry progress at a strategic level, although relatively slow, has been considered, collaborative and positive. Since 2010 RSSB has formally extended its remit to include worker health and wellbeing. In 2014 they published an ambitious and wide ranging health and wellbeing Industry Roadmap¹⁸, following extensive cross industry consultation. The Roadmap and formation of a health and wellbeing policy group to steer its delivery, clearly demonstrate an openness and desire to work together to improve worker health and wellbeing. The introduction of health and wellbeing concerns into the mainline CIRAS confidential reporting scheme newsletter and the CIRAS pledge to the IOSH No Time to Lose cancer campaign, are a positive and visible demonstration of industry leadership. The first RSSB industry health conference in October 2014 was an important catalyst for securing wider industry participation in devising solutions and sharing good practice on health management.
- 5.3 The influential Rail Delivery Group (RDG) 'people work stream' recognises the importance of employee health and wellbeing in ensuring that the industry has the right people with the right motivation to deliver increased productivity and reduce costs. ORR is looking to the RDG to support the mainline industry's efforts to secure progress in improving employee health and wellbeing.
- 5.4 National leadership on occupational health within Network Rail now appears strong, with the introduction in 2013 of a health and wellbeing strategy 'Everyone Fit for the Future' and a clear implementation programme. NR has also strengthened its health and wellbeing expertise. The inclusion of health and wellbeing requirements in NR's revised code of practice for contingent labour has potential to drive up compliance on health through its supply chain.
- 5.5 At a working level, mainline industry leadership has been demonstrated by a number of collaborative groups: NR contractors on the Infrastructure Safety Liaison Group (ISLG) pursuing a Health Manifesto, the Ballast Dust Working Group (BDWG)³⁷ and the Track Safety Alliance (TSA)³⁸ on silica, ATOC and train operators producing guidance on specific health topics such as legionella, and use of ramps to board wheelchair users³⁹. LUL has also continued to show leadership in collaborative working, including work with the Health and Safety Laboratory on manual handling

³⁷ Ballast Dust Working Group: <https://www.safety.networkrail.co.uk/Toolbox-for-Supervisor/National-Supply-Chain-NSC/Ballast-Dust-Working-Group>

³⁸ Track Safety Alliance: <http://www.tracksafetyalliance.co.uk/h/about-us/tsa-videos/65/>

³⁹ ATOC guide: <http://www.atoc.org/download/clientfiles/files/2014-06-guide-T759-wheelchair-users-online-v13.pdf>

solutions for design and use of hand propelled rail handlers, and with HSE on its LIDEN (Leading Indicator of Damaging Exposure to Noise) project on noise exposure management.

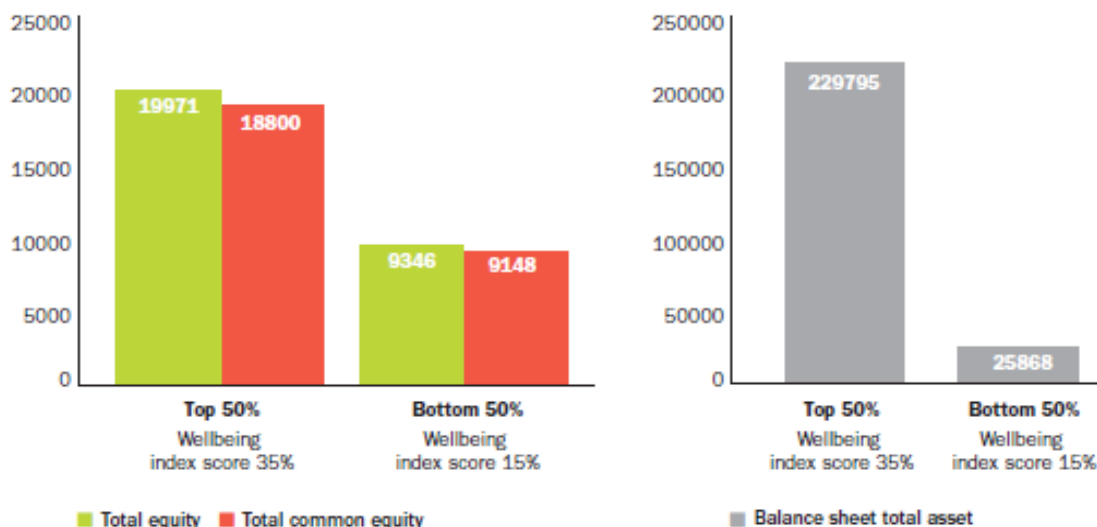
- 5.6 Within the rail industry a lack of rail specific clinical support, expertise and guidance to third party providers and rail managers has presented challenges. The renewed focus on clinical knowledge and leadership included in the Industry Roadmap, being taken forward by the Health and Wellbeing Professions Committee and supported by The Association of Railway Industry Occupational Health Practitioners⁴⁰, should help to drive improvements in outcomes for individuals, as well as efficiency savings for rail businesses.
- 5.7 Since 2010 we have seen the positive impact of trade union campaigns on raising awareness and seeking improved control on health and wellbeing in rail. Recent examples include initiatives by the TSSA on understanding the impact on work performance for those with dyspraxia and dyslexia, RMT guidance on diabetes and DEEE, ASLEF on train cab design, and UNITE's campaign on workplace stress and guidance on DEEE. ORR's 2013 trade union safety representatives conference⁴¹ focused solely on worker health and wellbeing. It explored the key role of safety representatives in improving health risk management across a range of topics including stress, fatigue, asbestos, silica, and suicide.
- 5.8 Public reporting on worker health is an important indicator of visible leadership, and is one of the measures that ORR uses to assess progress under our health programmes. Responses to ORR's 2014 health data survey indicate a move towards stronger public visibility and accountability on health among rail companies. However the numbers of companies who report publicly on health against quantitative targets is still small, at around a fifth of the 2014 survey respondents (See Annex D), compared with two fifths who do so for safety. It is clear that worker and public safety still has a higher profile in terms of public reporting than ill health, despite an increasing recognition among rail employers that health should be treated 'like safety'.
- 5.9 Independent research in 2014 on the Business in the Community (BITC) Workwell Public Reporting Benchmark⁴² shows a continued upturn in public reporting on health and wellbeing among FTSE 100 companies. In 2014 all FTSE 100 companies reported publicly on at least one aspect of employee wellbeing and engagement, with 90% reporting specifically on better physical and psychological health. Importantly, this report shows a significant positive correlation between companies' performance in public reporting on worker wellbeing, and their financial performance as measured by total assets and total equity. Companies scoring highly on the public reporting Wellbeing Index score outperform those who scored much lower.

⁴⁰ ARIOPS: <http://www.ariops.org.uk/>

⁴¹ ORR TU reps conference 2013: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/occupational-health/presentations-and-events>

⁴² Business In The Community FTSE 100: <http://www.bitc.org.uk/our-resources/report/ftse-100-public-reporting-wellbeing-and-engagement>

Figure 12 – Relationship between total score on public reporting against the BITC Workwell Model and financial performance (£GBP million)



Source: BITC FTSE 100 public reporting Employee engagement and wellbeing 2014⁴²

5.10 We have also looked at public commitment by rail companies to improve worker health and wellbeing under the voluntary Department of Health Public Health Responsibility (PHR) Deal⁴³, first launched in March 2011. During our 2010-14 health programme, around 10 rail industry companies (including wider construction contractor groups also working in rail) publicly pledged their support. ORR is actively promoting rail industry commitment to the PHR Deal under our current health programme and it is encouraging to see further good progress in this area. Between April 2014 and January 2015, a further 16 companies operating in the rail sector (excluding occupational health providers) have signed up. It is notable that the majority of the signatories are either construction companies or specialist rail contractors. Of the non-contractor signatories, there are three train operators (Arriva Group, Northern Rail and Virgin Trains) plus Network Rail. The most common pledges are in relation to occupational health provider standards, health and wellbeing reporting, and mental health and wellbeing. All the contractors have committed to the construction and civil engineering industry pledge. We would like to see more rail companies, particularly passenger, freight, and light rail operators, showing public commitment and leadership on health in this way.

5.11 Despite the significant improvements in leadership since 2010, we have yet to see a clear strategy across all parts of the industry to drive progress on health, or visible board level commitment across all duty holders. ORR recognises that ill health and associated sickness absence continues to impose significant personal, business and societal costs. We will continue to push for better leadership and planning to improve compliance and reduce the direct and indirect costs of health.

⁴³ Department of Health PHR Deal: <https://responsibilitydeal.dh.gov.uk/>

Industry awareness on health

- 5.12 There is clear evidence that rail companies are now far better informed on occupational health than in 2010. There are positive signs of a higher profile for health at senior management level, with many rail companies setting performance indicators on health. Under its 2014 Health and Wellbeing Strategy, Network Rail has established a series of specific quantitative targets on occupational health, alongside a dashboard of health and wellbeing metrics to track progress. TfL reports publicly on sickness absence by cause and business area, supplemented by additional health performance indicators in priority areas such as mental health and MSDs. We are aware of some mainline train operators, including for example Southeastern Trains, London Midland and Northern Rail, developing health metrics as KPIs. Although there is still no universal set of core metrics across the industry, common features include sickness absence rates, including absences for specific causes such as MSDs or stress. They also include participation rates for health surveillance and wellbeing initiatives such as health fairs and online health tools. In 2014 ORR submitted to RSSB an outline proposal for a possible dashboard of health metrics which might be developed further for benchmarking across mainline rail. We hope to see work in this area progress during our current health programme.
- 5.13 The launch by RSSB in 2014 of its Health and Wellbeing Resources and Assessment Tool⁴⁴ and the current project on health risk assessment for common rail environments (T1085) should help to drive better understanding and compliance on health risk assessment. However, we believe that there remains significant scope for the rail sector to make quicker and better use of established good practice and well-tested health risk assessment tools (for example the HSE MAC tool for manual handling, and the HSE Management Standards approach for work-related stress). More rail companies could harness help and support on health and wellbeing from outside the industry, including initiatives within the Department for Work and Pensions, NHS and health charities such as MIND and the British Heart Foundation.
- 5.14 Since 2010, ORR has found many rail companies willing to share good practice across the industry by producing case studies to show the health and financial benefits of health management initiatives. Over the four years of our health programme 21 health case studies from across the industry were published on our health web pages³². Freight, tram and heritage operators have been less visible in sharing good practice on health than others, and we would encourage these companies to share with the wider industry what works. We will continue to seek to build an evidence base of these case studies because we believe occupational health improvements can provide value for the money invested and will act as a powerful driver for improvement.

⁴⁴ RSSB health & wellbeing resources: <http://www.rssb.co.uk/improving-industry-performance/workforce-passenger-and-the-public/workforce-health-and-wellbeing/behavioural-change/health-and-wellbeing-assessment/health-and-wellbeing-assessment-resource>

- 5.15 Independent research for ORR in 2014 to evaluate the impact of our first health programme⁴⁵ confirms an increased awareness on health across the rail industry. For example, more than three quarters of industry respondents reported having visited ORR health web pages, and more than half had attended an ORR health event. ORR data on visits to our website confirms significant and sustained increases in use of ORR's health web pages as industry awareness has increased. We recorded over 32,500 visits to our health web pages during our first health programme. More detail on use of ORR health web pages, as one of the indicators we use to assess the impact of our health programmes, is in Annex D.
- 5.16 The growth in the industry's subscription to ORR's quarterly health programme updates⁴⁶, which provide guidance and key messages on occupational health, provides a useful additional indicator of awareness on health. Since the launch of our online subscription service in April 2013, the subscription base had grown to more than 400 by April 2014, and by May 2015 to more than 550 subscribers. Our quarterly health update appears to be reaching a wide cross section of the industry. Current subscribers span more than 35 separate rail industry organisations including the four rail trade unions, contractors, rail operators, infrastructure managers, ATOC, British Transport Police and occupational health service providers. However, the independent evaluation report indicates that our message on health is not getting to all those who may need it. Although the quarterly health update was viewed positively by the majority of those who saw it, only a third of the survey respondents actually received it. We continue to work hard to increase awareness across the industry of the health guidance available on our website, including the quarterly updates and periodic health e-bulletins. We would also ask rail companies and trade unions to help us, for example by cascading useful ORR guidance and updates within their business, and providing links to ORR's health pages on their own websites and intranet pages.

Culture of excellence within rail companies

Key findings: Culture of excellence within rail companies

- We have seen numerous examples of good practice in managing worker health across many parts of the industry. We commend efforts to work collaboratively to tackle specific health problems, for example silica in ballast dust and manual handling in Passenger Assist, and the further development of innovative approaches to reducing potentially harmful exposures.

⁴⁵ ORR independent evaluation report: http://orr.gov.uk/data/assets/pdf_file/0019/14815/accent-report-on-2010-14-occupational-health-programme.pdf

⁴⁶ ORR quarterly health updates: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/monitoring-and-reporting/occupational-health-quarterly-updates>

- However, occupational ill health must be better managed by railway duty holders, not least because we have found evidence of failure to meet minimum legal requirements across the industry, which in too many cases required formal enforcement action.
- RM3 (Railway Management Maturity Model) scores for occupational health management remain significantly and consistently below those seen for managing safety. We want to see rail companies make more use of RM3 for health and identify key areas for improvement, particularly in relation to monitoring and review of compliance with legal duties on health.
- Despite recent progress, the rail industry continues to underperform in managing health compared with safety risks, particularly in mainline maintenance and renewals. Compliance on occupational health is lagging behind comparable industry sectors.
- Key areas of under-performance include:

- Underlying many of these weaknesses is a lack of competence among front line managers for health risk control at site level, and insufficient attention to assurance on health. Failure to tackle these two key issues will significantly undermine industry efforts and investment on occupational health.

Maturity in health risk management

5.17 Inspection work under our 2010-14 health programme confirmed that rail worker health still has a lower profile than worker and passenger safety. Occupational ill health must be better managed by all railway duty holders, not least because we have found evidence of failure to meet minimum legal requirements across the industry.

5.18 Over the four years of our first health programme we served 20 formal enforcement notices for failure to adequately control risks to workers' health or welfare on the mainline, underground and heritage infrastructures. Five of these were prohibition notices arising from failure to control a serious personal risk to health. Formal enforcement has been needed to secure improved control of risks from use of hazardous substances, including asbestos, isocyanates, welding fumes, concrete dust and cleaning of train under-frames; HAVS; manual handling risks in station refurbishment and infrastructure maintenance; and inadequate welfare provision.

Details of ORR enforcement notices can be found on the ORR public register⁴⁷. It is disappointing that since April 2014 we judged a need to serve a further five notices on health, including two prohibition notices.

5.19 During our first health programme, ORR inspectors started to use our Railway Management Maturity Model⁴⁸ (RM3) to measure the maturity of elements of occupational health risk management. Sample RM3 assessments have revealed wide variations in maturity between companies, but also in how well individual duty holders manage different health risks. We are still building our understanding of the industry's capability in managing health risks using RM3 and do not yet have a complete picture. However, overall the sample RM3 scores for occupational health management remain significantly and consistently below those seen for managing safety, with level 2 (managed) most prevalent, and in a few cases no better than level 1 (ad hoc). However, we did find pockets of more mature health management for Transport for London (TfL) and in some TOCs. Although RM3 elements such as leadership and policy typically rated higher, many key elements including local management and supervisory accountability, competence, control of contractors, target setting, and proactive monitoring, typically scored lower. This assessment underpins the case for the rail industry to make more use of RM3 for health and identify key areas for improvement. This is particularly important in relation to arrangements for monitoring and review required under Regulation 5 of the Management of Health and Safety at Work Regulations 1999. New ORR guidance on RM3 for health⁴⁹ and also on assurance for health⁵⁰ should help rail companies to do this.

Good practice in managing worker health

5.20 We have seen an increase in good practice and innovative approaches to health risk management during the four years of our first health programme. We are encouraged by increased efforts to reduce health risks by engineering means, rather than rely on the use of personal protective equipment (PPE) or job rotation. Examples include work to reduce silica exposures by better wetting of mainline ballast wagons and stockpiles, and localised water misting for breaking out concrete in sub surface tunnels, and reducing DEEE by charging air cylinders from shore supplies rather than via engine running. Other examples include more effective use of continuous monitoring systems on high vibration tools to assess and manage HAV risks, as well as efforts to source lower vibration hand tools. We are encouraged that the RSSB Rail Technical Strategy (SPP03) recognises the potential for greater innovation to drive improved worker health and wellbeing (and reduce associated costs). We support the industry in actively seeking innovative solutions to improve worker health.

⁴⁷ ORR public register: <http://orr.gov.uk/publications/public-register>

⁴⁸ ORR RM3 guidance: http://orr.gov.uk/_data/assets/pdf_file/0013/2623/management-maturity-model.pdf

⁴⁹ ORR RM3 on health: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/monitoring-and-reporting/occupational-health-and-the-railway-management-maturity-model>

⁵⁰ ORR guidance on assurance: <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/monitoring-and-reporting/health-risk-management-assurance>

- 5.21 Network Rail's 2013 health and wellbeing strategy puts effective management of occupational health at its heart and identifies key health and wellbeing topics for specific attention, including priority areas such as HAVs, mental health, and respiratory disease. The strengthening of professional support to route managers by recruiting occupational health managers for each route is a positive step. Network Rail and its contractors have worked collaboratively at national level to raise awareness and promote improved standards of control in managing exposures to silica in ballast dust. However, much remains to be done in order to embed and deliver the good practice at site level. We have seen signs of innovation in mainline bridge refurbishment, including a recent trial where health risks from lead and isocyanate exposure were reduced by use of high pressure steam jetting to remove old lead based paint. This was followed by application of a non-isocyanate coating system designed to adhere to the cleaned paint surface.
- 5.22 LUL and their contractors have also shown innovative approaches to the health risk management challenges presented by the need to carry out maintenance work extensively underground, with difficult access often via stations built in the Victorian era. Good practice examples include use of remotely operated, rather than manual, breakers and use of 'concrete bursting' techniques to break up concrete pit blocks and sleepers, reducing silica, HAVS and noise exposures. Health risks in train carriage refurbishment were reduced by improved design of mobile spray enclosures for isocyanate paint spraying, and replacement of electric chisels with lower vibration pneumatic chisels with longer handles, also reducing MSD risks from crouching and kneeling. The need for manual handling via the stairs was minimised by installation of conveyor systems in some underground stations to deliver maintenance and renewals equipment direct to the platform. In addition to health risk reduction, these improvements invariably delivered productivity benefits.
- 5.23 Train and freight operators have also adopted, and been keen to share, good practice in health risk management. Some examples include Arriva Train Wales' (ATW) approach to trauma management⁵¹, Merseyrail's Heart on Track Challenge³⁵, First ScotRail's work to improve legionella risk management in carriage wash facilities⁵², and training in safe working practices and face fit testing of drivers by DB Schenker to minimise exposures to silica in ballast dust. There have also been proactive approaches by Northern Rail, ATW, Southern, and South West Trains to assessing and mitigating MSD risk in train cabs³². We have seen innovation by some TOCs in using GPS controlled systems on older rolling stock (without retention tanks) to prevent discharge of toilet effluent at specific locations. We have seen other examples where, following a thorough review of health management arrangements, TOCs have introduced additional health surveillance for groups of staff.

Areas of weakness in managing worker health

- 5.24 Despite increasing examples of good practice in specific areas, since 2010 our inspection work has continued to find significant weaknesses in management of key

⁵¹ ATW case study: http://orr.gov.uk/data/assets/pdf_file/0020/2783/atw-stress-case-study.pdf

⁵² Scotrail case study: http://orr.gov.uk/data/assets/pdf_file/0011/3611/oh-case-study-legionella-scotrail.pdf

health risks across the industry. We found some rail duty holders still failing to properly assess and manage key health risks, including HAV and silica dust during mainline maintenance and renewals, asbestos management in railway premises, and MSDs from manual handling activities on track, on trains and at stations. On manual handling, failure to assess and control risks from frequent manual lifting and carrying of heavy concrete troughs by mainline track maintenance workers was of particular concern. We also found inadequate manual handling risk assessments for TOC staff assisting wheelchair users, and for handling access ramps and catering trollies, as well as weaknesses in monitoring of safe working practices, among some train operators.

- 5.25 We found scope for improved control of exposure to noise and DEEE in some depots, including more regular testing and maintenance of exhaust ventilation systems, and more consistency in use of suitable hearing protection. We found evidence of continued reliance on the use of bought-in packages to assess risks from hazardous substances. Companies could achieve more effective results if their own competent staff took ownership of the assessment and risk management process. We found failures to identify the health risks associated with by-products from an activity (for example metal fumes when welding, and legionella bacteria from train carriage washing). Such a lack of detailed assessment is significant because it inevitably leads to inadequate controls.
- 5.26 The absence of a co-ordinated and systematic approach to health risk management at route and site level by NR and its contractors was of particular concern. It remains a key focus of our inspection work on health. The marked upturn in HAVS diagnoses reported by NR since 2010, coupled with systemic weaknesses in HAVS risk management identified by our inspection work, has been a key driver in NR identifying HAVS as a strategic priority for 2014/15 and beyond. We continue to monitor their progress in implementing improved procedures for assessing and managing individual HAV exposures, particularly in track and property maintenance and renewals, as well as through their supply chain, including equipment procurement.
- 5.27 Evidence gathered from our sample inspections of the heritage sector found lower than expected awareness of some specific health management duties required by law. There were particular weaknesses in record-keeping: for example, flaws in maintenance records for local exhaust ventilation equipment, failings in maintaining registers on the possible location of asbestos, and risks from manual handling of sleepers. We identified some weaknesses in the way skin-disease causing hazardous substances such as oil, grease, and man-made mineral fibres used in boiler-lagging were managed. Also in the management of worker exposure to noise and vibration, particularly during the maintenance and repair of vehicles. We continue to monitor and address these issues as part of routine inspection work.
- 5.28 Our inspection work has identified a fundamental weakness across the industry to proactively monitor and review compliance with health risk management on the ground. We believe that, without this key assurance activity in place, efforts to raise compliance standards on health will be undermined and investment in health largely

wasted. Improving rail manager competence on occupational health will be essential to delivering better assurance and consistent compliance.

5.29 In response to our recent inspection findings, ORR has identified three areas of health as requiring a mandatory investigation⁵³ (from 2014) when reported to us. These are Legionellosis (legionnaire's disease) where the source of infection may be on a railway location enforced by ORR, any suspension from work of a worker due to high blood lead levels, and any report of a case of occupational asthma resulting from exposure to a respiratory sensitizer, such as isocyanate paint.

⁵³ ORR mandatory investigation policy: http://orr.gov.uk/_data/assets/pdf_file/0008/14399/mandatory-investigations-policy-and-guidance.pdf