Risk Assessment - Impact of using new and alternative coal supplies

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Department: Steam Loco
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Burning of alternative coals/fuels in steam locos.

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Environmental	Environmental impact of increased black smoke Whilst ovoids are 'smokeless' fuels, supplies of harder Columbian coal are known to produce more black smoke than traditional welsh steam coal.	Everyone	1) CRITICAL - Administrative: Instruct drivers and firemen in techniques to minimise black smoke - Effective 2) CRITICAL - Administrative: Monitor smoke emissions so as to be able to understand the impact of the new coal on different locos an in different situations. - Effective 3) CRITICAL - Administrative: Monitor the amount of ash being produced and deposited into the ash pan so as to understand the amount of fuel being used effectively and hence the waste content. - Effective	5 x 2 = 10 Medium - Risk to be minimised and controlled so far as is reasonably practical.	None	5 x 2 = 10 Medium - Risk to be minimised and controlled so far as is reasonably practical.	n/a
Operations	Services disrupted by coal issues Initial trials and operations caused issues with locos running out of coal due to burning more than normal and also an inability to produce enough heat to raise the required amount of steam for reliable loco operation.	Everyone	1) CRITICAL - Engineering: Ensure that loco tenders and bunkers are kept well stocked (above previous levels) to avoid running out during an operational day. - Effective 2) CRITICAL - Engineering: Ensure that if mixing the coals/fuels for each loco that the crew are fully aware of the likely effect on the fire (less heat and more clinker) and that they prepare it accordingly. - Effective 3) Engineering: Segregate the coal supplies storage so as not to mix up fuels and mistake one for another. - Effective	4 x 2 = 8 Medium - Risk to be minimised and controlled so far as is reasonably practical.	None	4 x 2 = 8 Medium - Risk to be minimised and controlled so far as is reasonably practical.	n/a
Finance	Financial impact of increased fuel prices A lack of coal due to UK mines ceasing to operate and the war between Russia and Ukraine affecting supplies has led to a sharp increase in prices.	Everyone	1) CRITICAL - Engineering: Train footplate staff so that only the minimum amount of coal required is actually used and that there is no wastage. - Effective 2) CRITICAL - Engineering: Undertake trials to understand exactly what coal consumption is undertaken by each loco. - Effective 3) CRITICAL - Administrative: Ensure that all available suppliers are approached for quotations so as to be sure to be getting the best price available. - Effective 4) CRITICAL - Administrative: Assess the impact of coal prices on operations and take any necessary actions to account for increased costs such as increased ticket prices, reduced running, more efficient operations etc etc. - Effective	3 x 4 = 12 Medium - Risk to be minimised and controlled so far as is reasonably practical.	1) Substitution: Consider only using those locos known and proven to use 'less' coal than others.use - Effective	4 x 3 = 12 Medium - Risk to be minimised and controlled so far as is reasonably practical.	n/a

Score and Control Measure Notes.
Estimated extra cost of £60,000.
Needs quantifying to understand usages and cost impact.

COSHH Assessments

There are no COSHH assessments associated with this risk assessment.
Ends