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 Our ref
 50303/04/HS/8622158v1

 Your ref
 NYM/2014/0676/MEIA

Dear Mr France

Application to carry out Mineral Winning, Working, Transport and Associated Development (Ref: NYM/2014/0676/MEIA): Response to Yorkshire Wildlife Trust

Nathaniel Lichfield & Partners (NLP) on behalf of the applicant, York Potash Ltd (YPL), is writing to respond to the letter provided by Yorkshire Wildlife Trust (YWT) on 10 December 2014 in respect of the above minerals planning application.

The Authority will be aware that some revisions have been made to the scheme proposals, with additional information submitted to address these changes and to provide further clarification of the proposals since YWT originally provided its response. With this information now with the Authority to consider alongside the other application material, this is now an opportune moment to respond to the various matters raised by YWT.

NLP has reviewed YWT's response in detail and considers that the matters raised give rise to a number of prevailing 'themes' against which a response would assist the Council's consideration of the application. It is important to note that the information provided within this letter draws upon information currently submitted to the Council, rather than introducing new information to address the matters raised. Each of these 'themes' are addressed in turn below.

1. Major development within National Parks

In its response, YWT refers to the statutory policies and provisions of relevance in place when considering major development in National Parks, and concludes that, in its view, the proposed development would be contrary to Development Plan policy.

The Authority will be aware that a significant amount of information has been submitted with the application to meet the provisions of the Major Development Test (MDT), as prescribed by Paragraph 116 of the National Planning Policy Framework (NPPF, 2010), and other Development Plan policy of relevance to the assessment of the proposals. This includes a Major Development Test Planning Statement (September 2014); Alternative Sites Assessment (ASA, September

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2014), Environmental Statement (ES, September 2014) and Supplementary Environmental Information (SEI, February 2015).

NLP does not intend to repeat YPL's full Major Development Case as part of this response to YWT's comments. Overall, and in response to the comments provided by YWT, it is concluded that the proposals have been developed in full recognition of the policy priorities for National Parks and the policy context for development beyond the National Park boundary, and have achieved limited adverse effects and in some instances residual positive impacts across key environmental concerns. Given this, combined with the conclusions of the MDT planning case, it is concluded that the proposals comply with relevant national and local Development Plan policy.

2. Landscape and visual effects

YWT highlights in its response, the following matters regarding the potential landscape and visual effects of the proposals:-

- The 'highly intrusive' nature of the minehead and Mineral Transport System (MTS) intermediate sites during the construction and early operation phases;
- ii The ability (or otherwise) to re-establish vegetation on the proposed landscape bunds; and
- The underestimated amounts of spoil that would be created by the development.

Each of these items is addressed in turn below.

(i) Landscape and Visual Effects of the Minehead and Intermediate Shaft Sites

From the outset of the Project, there has been a desire to create a scheme that is sympathetic to its landscape setting, and this guiding principle has directed the design development. In summary, the design objectives applied in broad terms seek to ensure the development minimises adverse effects on views into and out of the sites both during daylight and night hours; adopting an appropriate scale, layout, and density necessary for efficient operation but sympathetic to prevailing site and surrounding characteristics.

At Dove's Nest Farm, for example, substantive efforts have been made to limit above-ground infrastructure, adopting innovative and industry-leading design. Perhaps most noteworthy, from the initial scheme conception, the decision was taken to create below-ground chambers to accommodate the two deep shaft winding structures. The proposals to house above-ground mining infrastructure in agricultural-style buildings and create new landscaped spoil landforms on the periphery of the mine and MTS sites that would envelope and surround the buildings would further assist to integrate development, whilst maintaining the broad existing landscape character.

The product of this process is a scheme that once operational would integrate with the landscape and minimise its visual presence. The impact of the Mine and MTS development sites on their respective landscape settings at Year 1 of the operational phase would be minimal, as set out in the ES (September 2014) and SEI (February 2015) and demonstrated by the photomontage images enclosed therein. Seeding and planting measures would be undertaken progressively during the construction phase, enabling a good degree of establishment to be achieved across large parts of the sites before the start of the operational phase. As proposed planting matures



(with any failures replanted as required through the aftercare process), the sites would be further integrated into their settings, with proposed vegetation treatments designed to reflect local landscape and ecological characteristics. It is anticipated that this further level of integration would be achieved within a period of 5-10 years following completion of the construction phase.

YPL acknowledges that there would be some landscape and visual impacts associated with the Project during the construction phase but these would be temporary in nature and would not result in a permanent adverse effect on the presence, breadth and quality of landscape types within surrounding areas.

YPL has given further consideration to the scope for reducing these construction impacts and, through consultation with the Ministry of Defence, it has been agreed that aviation lighting is no longer required on the construction winding towers. This lighting has therefore been removed from the proposals (refer to Section 3.12 of the Supplementary Environmental Information, February 2015).

In addition, YPL has reviewed the options for the external treatment to be applied to the winding towers. Further information is provided in the Supplementary Environmental Information (Paragraphs 3.12.2 to 3.12.4). From exploring the use of complementary colours on the winding tower cladding in the form of banded or panelled patterns, it may be possible to 'break-up' the visual appearance of the overall form and bulk of the winding towers improving the ability to camouflage their appearance.

(ii) Re-establishing vegetation on new landscaped bunds

The YWT makes the point that re-establishing vegetation on compacted soil is difficult, particularly for semi-natural woodland vegetation.

The landscape appendices to the Design and Access Statement (September 2014) set out restoration soil depths and vegetation treatments at the proposed Mine and MTS development sites. Proposed vegetation treatments would not be established directly on compacted spoil but instead on deep soil cover placed above the spoil. As an example of this the following soil depths (to be placed using loose tipping techniques to avoid compaction) are proposed across areas the Dove's Nest Farm site.

- Woodland areas over natural subsoils (or mounds formed from natural soils) 300mm topsoil over 400mm upper subsoil;
- Woodland areas over capped excavated materials 300mm topsoil over 400mm upper subsoil on 1300mm lower subsoils, to form a total rootable depth of 2000mm. The proportionate depth of upper and lower subsoils may be varied depending on the availability of each type of subsoil but the overall 2000mm rootable depth would be maintained;
- Mixed scrub/grassland areas 300mm upper subsoil over 300m lower subsoil, with a mosaic of 50% cover of topsoiled (average 300mm deep) and non-topsoiled areas; and
- Species-rich grassland areas 300mm topsoil over 200mm upper subsoil, to form a total rootable depth of 500mm.



The soil depths proposed in woodland areas exceed those recommended by the Forestry Commission for the sustainable establishment and growth of woodland on landfill sites (i.e. situations where woodland is established on substrates other than natural ground).

The proposed soil depths in acid grassland areas are considered to be sufficient for grassland to be successfully established without roots forming any significant contact with underlying spoil. As such, it is not anticipated that underlying spoil would influence grassland species composition Furthermore, based on experience of soil cover over pyritic colliery spoil, the underlying spoil is not expected to become acidic (due to proposed soil cover depth), in line with British Coal research and best practice guidance.

The gradients used across the proposed landforms do not generally exceed a maximum slope angle of 1 in 3 (the exception being localized 1 in 1 internal slopes at the minehead shaft platform, where a retaining system would be used). 1 in 3 is a commonly used gradient within landscape schemes and is not considered to be a significant constraint on tree and shrub growth.

The use of tree and shrub species which are local to the sites and use of best practice establishment and aftercare measures, as proposed, would ensure good establishment and long-term growth of planting at the sites. The elevation of some of the sites, and coastal hinterland location, are acknowledged as constraining factors on woodland growth. However, given the success of existing woodlands adjoining the various sites, and the high quality of restoration proposed, successful establishment and sustainable long term growth of restoration woodlands at the sites is considered both feasible and realistic. Similarly, the ability to successfully establish and manage grasslands, wetland and scrub habitats is not considered to be a significant issue. The evidence to support the success of all these types of restoration is demonstrated by numerous mineral developments on differing ground conditions throughout the country¹.

(iii) Underestimation of spoil creation

The YWT specifically queries the bulking factor applied for calculating the amount of sandstone to be created by the development.

The bulking factors used to calculate the quantity of spoil to be created at the Mine and MTS sites are considered to be appropriate. Ground investigations have shown that the sandstone at the site has an in-situ bulk density of around 2.21 t/m³. A bulking factor of 1.8 as suggested by YWT would yield a bulk density of the sandstone when placed and compacted in the bunds of only 1.22t/m³ which is inconceivably low for a compacted sandstone fill.

The bulking factor applied is consistent with published values, e.g. M^cNally, Soil and Rock Construction Materials, Spon, 1998, reports bulking factors of 1.1 for weathered sandstone and 1.3 for unweathered sandstone. The value of 1.2 adopted for sandstone is in the middle of this range, and is therefore considered to provide a realistic basis on which to calculate spoil generation.

¹ <u>http://www.mineralproducts.org/restoration and biodiversity awards 2013.htm</u>



National and local nature conservation and wildlife sites

The YWT question the approach of the ecological assessment undertaken within Chapter 11 of the ES given a perceived failure to have regard to the potential effects of the development on locally important sites within the National Park, such as Local Wildlife Sites and Sites of Importance for Nature Conservation (SINC).

This is a misinterpretation of the assessment undertaken. Chapter 11 of the ES (Part 2, Paragraph 11.4.3) clarifies the measures undertaken to obtain baseline information on locally designated nonstatutory sites of importance for nature conservation, including Local and County Wildlife Sites in the vicinity of the Dove's Nest Farm. This process included liaising with North East Yorkshire Ecological Data Centre (NEYEDC) to obtain the relevant information, and covered a general study area that extended 2km around the proposed Mine surface development site, with a 5km study area applied specifically for the assessment of bats. The same methodology has been applied to the assessment of the MHF intermediate sites (ES, Part 3, Paragraph 11.4.2 and 11.4.15).

Chapter 11 of the ES (Part 2, Table 11.12) for the Mine assigns a 'high' sensitivity value to the assessment of effects on non-statutory sites. Further, Section 3.17 – 3.89 of the Mine baseline ecology survey report (Part 2, Appendix 11.2(a) of the ES, September 2014) and the ES (Part 2, Chapter 11, Paragraphs 11.4.15-11.4.25) provides a summary of each habitat type, including Local and County Wildlife Sites and Nature Reserves (e.g. Little Beck Wood) within and in proximity to the proposed Mine surface development site. The assessment concludes that there would no adverse impact on non-statutory designated conservation sites during the construction and operation phases because of the distance of these sites from the proposed Mine facility site.

In respect of the MTS intermediate sites, the ES (Part 3, Chapter 11, Paragraphs 11.4.23 to 11.4.47) provides a detailed description of habitats and statutory and non-statutory sites, including Local Wildlife Sites and County Wildlife Sites. The impacts of the development on these sites are then assessed later in this part of the ES.

The SEI submitted to the Council in February 2015 applies the same approach to assessing the minor changes to the Mine and MTS proposals, and includes an updated validation survey that records any changes in the sites' conditions as well as identifying any additional ecological considerations.

In this context, it is considered that locally important nature conservation and wildlife sites have been adequately assessed, and the significance of the effects of the development proposals on these sites have informed the conclusions reached in the ES.

Transport effects

The YWT suggests in its response that the number of vehicles and the frequency of vehicle movements on the road network have been underestimated, and queries whether the B1416 can support the anticipated numbers of HGV movements. It also raises a concern regarding the potential impacts of increased traffic movements on surrounding habitats, in particular at Little Beck Wood Nature Reserve.



The specification of the transport strategy provided in the ES and SEI has been derived from an application of the characteristics of the Project and prevailing highway conditions, as well as being informed by extensive consultation with statutory consultees on highway matters. This has also assisted with the definition of the Travel Plans for both the construction and operation of the Mine and MTS sites. The Transport Assessment is therefore based on a robust methodology that has been agreed with transport officers at NYMNPA and North Yorkshire County Council.

With the proposed package of mitigation in place, it is calculated that the residual impacts in relation to traffic and transport during the construction and operational phases are forecast to be of minor adverse significance at worst. Through the application of a carefully considered transport strategy that adopts a range of measures designed to reduce potential impacts, alongside a package of mitigation measures identified to address outstanding adverse impact, the proposals limit impacts across the highway network to an acceptable level, both within the National Park and its surroundings.

With regard to the effects of the development on local nature conservation and wildlife sites, including on Little Beck Wood Nature Reserve, the assessment in the ES and SEI conclude that there would no adverse impact.

Other environmental effects

The YWT makes a number of points regarding the potential adverse environmental effects of the development associated with contamination, lighting, and air quality. Each of these items is addressed in turn below.

(i) Contamination

The YWT comments that the application currently provides insufficient information on the ways in which spoil with high levels of leachate would be disposed of off-site, and the measures for protecting wildlife that could be affected by the storage of the spoil, either inside or outside the National Park.

The materials that require disposal off-site have been characterised and quantified within the application material. Leachate is formed by the prolonged percolation of rainwater through the spoil. The materials that are to be disposed of off-site are to be stored in temporary storage facilities that are engineered to minimise rain infiltration and saturation of the rock, and would hold appropriate environmental permits issued by the Environment Agency for this purpose.

As such, none of the materials generated and disposed of off-site disposal would have high levels of leachate. During transportation the materials would be contained within covered trucks that would minimise the risk of leachate forming during transportation. Consequently there is a very low risk of pollution occurring outside the site from this source.

Further comments are made in respect of potential leachate pollution originating from the proposed spoil mounds on-site. In this regard, the measures proposed for the protection of habitats and controlled waters from leachate are described in the application (Part 2, Appendix 14.3). The measures include compaction of the spoil to limit the ingress of oxygen and thereby prevent leachate generation; the provision of compacted clay liners beneath areas of spoil that have the



potential to generate leachate; and the use of capping layers and drainage layers to prevent rainwater from entering the spoil. The stability of the designs has been assessed in accordance with Environment Agency guidance documents and Eurocode 7 for geotechnical design and confirmed to be adequate. The risk of acidic leachate from the spoil affecting habitats and watercourses has been assessed within a Hydrogeological Risk Assessment (Part 2, Appendix 14.2) and given the above considerations, the risk is assessed as being very low.

ii) Lighting

Comments are made in respect of the lighting assessment undertaken, with questions raised regarding the levels of predicted illumination quoted. It is agreed that anticipated levels of lighting from the development are low, but this is as a consequence of the approach adopted by YPL to seek to reduce lighting to a level that is the lowest possible, whilst maintaining sufficient illumination to achieve a safe working environment. A series of inherent mitigation is included within the lighting strategy to help achieve this objective, including the selection of luminaires types designed to minimise light spill; the careful placement of luminaires in terms of height, angle and orientation; and the number of lights employed. It is also the case that the proposed lighting design complies with the published guidance from the Bat Conservation Trust, in respect of the location, orientation, shielding, heights and lamp types adopted.

Given this context, the findings of the lighting assessment undertaken in Appendix 12-1 of the ES, are a robust appraisal of the lighting effects of the project, and the limited impact identified results from the attention given to the lighting strategy during scheme design development. Furthermore, as the NYMNPA will be aware, since this study was undertaken, the removal of the aircraft warning system from the winding towers is now proposed and this would further reduce the lighting levels during construction, from that previously predicted.

iii) On-site Generators

Comments are made in respect of the proposed use of diesel generators at DNF and the MTS sites. It is noted that a detailed assessment of the impact of the diesel generators was first undertaken as part of the original ES (Part 2, Appendix 9.2). One of the design changes introduced as part of the recent SEI relates to proposed specification of the required diesel generators. Emissions data utilised in the application ES were based on a worst case assumption of unabated equipment operating continuously on full load. The diesel demand has since been reduced as more detailed information on the rate of consumption has become available from the manufactures

Work emissions from generators at DNF and the MTS intermediate shaft sites are now based on 1,250 kVA units with selective catalytic reductions (SCR) abatement equipment fitted to the exhaust system.

A reduction in pollutant concentrations, nutrient nitrogen and acid deposition at human and ecological receptors has been predicted as a result of the reduced diesel generator emissions, during the construction phase. Impacts at all human receptors are predicted to be negligible, whereas the submitted ES stated that impacts would be negligible to slight adverse. Therefore there would be a reduction in emissions and predicted effects as a result of the scheme changes, when compared to the ES. Impacts on designated ecological sites are further detailed in Chapter 11 of the SEI.



Tourism

Comments are made in respect of the potential tourist impacts of the proposals. The Park Authority will be aware both of the original assessment of Tourist Impacts detailed within Chapter 8 of the Economic Impact Report, and the more recent assessment undertaken within the SEI, that includes the results of a IPSOS MORI survey. This evidence provides a robust account of the potential for tourist effects resulting from both the operation and construction of the YPL project, drawing upon evidence from other major developments brought forward in sensitive areas. The full findings of this work is not repeated here other than to note that the YPL tourism assessment concludes that any potential effects on tourism would be related to visitor perception rather than the direct effects of the Project. However, YPL is proposing significant funding for tourism promotion detailed within the s106 document, to ensure that any residual impact of the scheme is compensated as appropriate.

It is anticipated that upon review of the SEI, YWT will be able to reconsider some of the points raised in its letter commenting on the YPL minerals planning application. In any event, it is hoped that this response will provide the NYMNPA with sufficient information on the points raised, to assist in the on-going consideration of the application.

Yours sincerely

Justin Gartland Chairman

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