

City of York, North York Moors National Park and North Yorkshire County Council (Mineral Planning Authorities).

**Minerals and Waste Joint Plan ("the Plan") Examination
Briefing Note to Inspector Elizabeth Ord, LLB (Hons), LLM, MA, Dip TUS .**

Participant: Mineral Planning Authorities.

**Subject: Examination Matter 3: Transport, Infrastructure and Safeguarding -
Safeguarding**

Supplementary Submission regarding (i) the revised safeguarding boundary put forward by Sirius following the hearing session which took place on 13th April 2018 and (ii) the very latest text proposed by the Mineral Planning Authorities for the relevant safeguarding policies and the related supporting justification.

Background. At the end of the formal hearing sessions (February & March & April 2018) , The Inspector invited Sirius Minerals and the Hydrocarbons Industry represented by INEOS to come together with a view to establishing whether common ground could be reached on the extent of the safeguarding area and wording of the potash safeguarding policies. Any such common ground to be passed to the Mineral Planning Authorities for consideration for further modifications. The MPA's understand that whilst there was scope between the companies for agreement on the safeguarding area and wording of policies SO1 & SO2, there was no agreement on how SO3 could be reworded to satisfy both industries. INEOS has sent its full note on these issues direct to the Inspector. This note indicates that, whilst Ineos are in agreement with the safeguarding boundary (as modified) and with the policy wording and text for Policies SO1 and SO2, they continue to seek further modifications to Policy SO3 and the related text, in order to introduce more flexibility into the Policy. Sirius confirmed that they were in agreement with both the safeguarding area and the wording of the policies and supporting text, as proposed to be modified .

1. The Revised Safeguarding Boundary

The proposed boundary of the potash/polyhalite safeguarded area ("the Safeguarded Area") has been redrawn by Sirius to ensure that it no longer encroaches on any areas covered by existing PEDLs. See attached copy map.

Both INEOS and Sirius have agreed the revision to the relevant Policies Map, (together with the inherent removal of the proposed sub-surface "2km buffer zone").

The MPA's are agreeable to the suggested change and will substitute the attached safeguarding area for map 13 of the Policies Map contained in the Publication Draft as a main modification and will consult on the change.

2. The Revised Safeguarding Policies

Following the proposed revision to the terms of the boundary of the Safeguarded Area and the removal of the 2km buffer, INEOS and other existing PEDL holders are now largely unaffected by the terms of the Safeguarding Policies other than in respect of that part of SO3 to assess the acceptability or otherwise of "proposals for deep drilling or development of underground gas resources" in the new Potash safeguarded area. Following the receipt of the recent representations from Ineos, the Authorities consider that further modifications to Policy SO3 and its supporting text could be made to address some, but not all, of the concerns raised. These potential further modifications are shown highlighted yellow in the policy and text extract below. The Authorities have not yet had the opportunity to seek formal views from Ineos or Sirius on these potential further modifications.

Policy S01: Safeguarded ~~ing~~ Surface Mineral Resources

~~Part 1) – Surface mineral resources:~~

~~The following surface minerals resources and associated buffer zones identified on the Policies Map will be safeguarded from other forms of surface development to protect the resource for the future:~~

- ~~i. All crushed rock and silica sand resources with an additional 500m buffer;~~
- ~~ii. All sand and gravel, clay and shallow coal resources with an additional 250m buffer;~~
- ~~iii. Building stone resources and active and former building stone quarries with an additional 250m buffer.~~

~~Part 2) – Deep mineral resources:~~

~~Potash and (including polyhalite) resources within the Boulby Mine licensed permitted area and Doves Nest Farm indicated and inferred resource area, identified on the Policies Map, will be safeguarded from other forms of surface development to protect the resource for the future.~~

~~Reserves and resources of potash and polyhalite identified on the Policies Map, including a 2km buffer zone, will also be protected from sterilisation by other forms of underground minerals extraction, deep drilling and the underground storage of gas or carbon in order to protect the resource for the future.~~

Policy S02: Developments proposed within Safeguarded Surface Minerals Resource Areas

Part 1) – Surface mineral resources:

Within the Safeguarded Surface Minerals Resource Safeguarding Areas shown on the Policies Map, permission for development other than minerals extraction will be granted where:

- It would not sterilise the mineral or prejudice future extraction; or
- The mineral will be extracted prior to the development (where this can be achieved without unacceptable impact on the environment or local communities), or
- The need for the non-mineral development can be demonstrated to outweigh the need to safeguard the mineral; or
- It can be demonstrated that the mineral in the location concerned is no longer of any potential value as it does not represent an economically viable and therefore exploitable resource; or
- The non-mineral development is of a temporary nature that does not inhibit extraction within the timescale that the mineral is likely to be needed; or
- It constitutes 'exempt' development (as defined in the Safeguarding Exemption Criteria list , as set out in paragraph 8.47).

Applications for development other than mineral extraction in Minerals Safeguarding Surface Minerals Resource Areas should include an assessment of the effect of the proposed development on the mineral resource beneath or adjacent to the site of the proposed development.

Part 2) – Deep minerals resources:

~~In areas identified as Underground Mineral Safeguarding Areas on the Policies Map, proposals for the following types of development should be accompanied by information about the effect of the proposed development on the potential future extraction of the safeguarded underground resource, as well as on the potential for the proposed surface development to be impacted by subsidence arising from working of the underlying minerals resource:~~

- ~~• Large institutional and public buildings;~~
- ~~• Major industrial buildings including those with sensitive processes and precision equipment vulnerable to ground movement;~~
- ~~• Major retail complexes;~~
- ~~• Non-residential high rise buildings (3 storeys plus);~~
- ~~• Strategic gas, oil, naphtha and petrol pipelines;~~
- ~~• Vulnerable parts of main highways and motorway networks (e.g. viaducts, large bridges, service stations and interchanges);~~
- ~~• Security sensitive structures;~~
- ~~• Strategic water pumping stations, waterworks, reservoirs, sewage works and pumping stations;~~
- ~~• Ecclesiastical property;~~

- ~~Power stations; and~~
- ~~Wind turbines~~

~~Permission will be granted where the assessment demonstrates that a significant risk of adverse impact on the development from mining subsidence will not arise or that the criteria in Part 1) of the Policy (other than the final criterion) are met.~~

~~Part 3) – Protecting potash and polyhalite resources from other underground minerals development:~~

~~Where proposals for deep drilling or development of underground gas resources or the underground storage of gas or carbon are located within the area safeguarded for potash, salt and polyhalite shown on the Policies Map, permission for development will only be granted where it can be demonstrated that the proposed development will not adversely affect the potential future extraction of the protected mineral.~~

POLICY S03: Safeguarded Deep Minerals Resource areas

Part 1) – Safeguarding potash from surface development vulnerable to subsidence:

Potash (including polyhalite) resources within that part of the Woodsmith Mine permission area, identified on the Policies Map for safeguarding, will be safeguarded from the following forms of certain surface developments to protect the resource for the future. Relevant forms of surface development include;

- Large institutional and public buildings;
- Major industrial buildings and other industrial buildings and infrastructure including those with sensitive processes and precision equipment vulnerable to ground movement;
- Major retail complexes;
- Non-residential high rise buildings (3 storeys plus);
- Strategic gas, oil, naphtha and petrol pipelines;
- Vulnerable parts of main highways and motorway networks (e.g. viaducts, large bridges, service stations and interchanges);
- Security sensitive structures;
- Strategic water pumping stations, waterworks, reservoirs, sewage works and pumping stations;
- Ecclesiastical property;
- Power stations;
- Wind turbines;
- Surface hydrocarbons development.

Permission for the above forms of development will be granted where it can be demonstrated that a significant risk of sterilisation of the safeguarded mineral deposits would not arise, or the need for the surface development would demonstrably outweigh the need to safeguard the mineral deposit.

Part 2) – Protecting potash (including polyhalite) resources from other underground minerals development:

Potash (including polyhalite) resources within that part of the Woodsmith Mine permission area, identified on the Policies Map for safeguarding, will also be protected from sterilisation by other forms of underground minerals extraction, deep drilling and the underground storage of gas or carbon in order to protect the resource for the future.

Where proposals for deep drilling or development of underground gas resources or the underground storage of gas or carbon are located within the area safeguarded for potash, (including polyhalite) shown on the Policies Map, permission for development will **only** be granted where it can be demonstrated that the proposed development will not adversely affect the potential future extraction of the protected mineral, or the benefits of the proposed development would demonstrably outweigh the need to safeguard the resource.

8.15 Underground mineral resources are not at direct risk of sterilisation through surface development in the same way as surface resources and there is no specific requirement in national policy to safeguard them within protected areas. However, certain forms of surface development, particularly large structures or those with sensitive processes taking place in them, may be particularly vulnerable to subsidence damage.

8.16 Potash, ~~salt and~~ including polyhalite resources in the Plan area are considered to be of strategic significance, as the potash and polyhalite deposits are the only known potentially workable resources in the country and planning permission currently exists for their extraction. Whilst remaining resources associated with the Boulby Mine are understood to be located offshore, resources permitted for extraction through the new Woodsmith Mine, currently under construction, underlie the north east part of the National Park. The permission granted for their extraction has a duration of 103 years. It is therefore considered that there is particular justification to safeguard them for the future.

8.17 ~~As t~~ These permitted resources cover a relatively large area in the north-eastern part of the Plan area it is not considered necessary or proportionate to safeguard the whole of the potential resource area. Furthermore, a large area of the resource is beneath the North York Moors National Park, where the risk of sterilisation as a result of significant surface development is relatively low. However, it ~~would be~~ is appropriate to safeguard ~~reserves and resources within the area licensed for extraction from Boulby Mine (the only active potash mine in the Plan area) along with those resources forming part of the York Potash project that have been identified with a higher degree of confidence–~~ an area of resource expected to be sufficient to cover the duration of the permission that has been granted. The extent of the area identified on the Policies Map for safeguarding includes those resources ~~forming part of the York Potash project~~ that have been identified with a higher degree of confidence (i.e. the indicated and inferred resources) as well as adjacent areas expected to be required to sustain the Mine over its permitted life. This will help to ensure that, where certain types of surface development, sensitive to subsidence, are proposed within the ~~licensed~~ safeguarded area, the presence of the

underground resource is taken into account. In this respect, the purpose of safeguarding underground resources is not to prevent surface development in the relevant area but to ensure that the potential implications for sterilisation of potash or polyhalite are taken into account. The Authorities acknowledge that it will be appropriate to keep under review the extent of the area necessary to provide adequate safeguarded resources over the permitted life of the Mine and will address this through subsequent reviews of the Plan where necessary. Types of surface development which are considered relevant for the purposes of safeguarding underground potash and polyhalite are identified in Policy SO23 (part two one). ~~A surface safeguarding buffer zone has not been identified due to the scale of the area and the extremely low risk of sterilisation by surface development in this part of the Plan area.~~

8.18 Extraction of gas in proximity to underground mining operations can give rise to particular concerns including the potential for gas to migrate towards, or accumulate in, mine tunnels. This could be a particular issue where hydraulic fracturing ('fracking') techniques are involved. Similar considerations could apply where proposals are brought forward for the underground storage of gas or carbon, for example in depleted natural gas reservoirs.

8.19 To ensure that consideration is given to protecting reserves and resources of potash, ~~salt and~~ including polyhalite from the potential effects of sub-surface hydrocarbons development extracting or storing gas, safeguarding is considered appropriate. ~~, including an underground buffer zone in addition to the area proposed to be safeguarded on the surface. A buffer zone of 2km is considered to offer a reasonable balance between protection of the resource and providing flexibility for other development to take place where appropriate, representing a horizontal distance which is readily achievable with current technology for horizontal drilling of oil and gas wells.~~ The safeguarding area, identified on the Policies Map, is considered to provide for safeguarding of resources sufficient to cover the permitted life of the Woodsmith Mine and offers a reasonable balance between protection of the resource and providing flexibility for other development to take place where appropriate and consistent with other policies in the Plan, recognising that PEDLs are located within the southern part of the National Park. There are no current PEDLs in the area covered by the safeguarded area. ~~and buffer zone.~~ As with other forms of safeguarding, the purpose is not to prevent other forms of development from taking place under any circumstances, but to ensure that the presence of the safeguarded resource is taken into account, and given priority where appropriate. In some circumstances it may be practicable to take measures, such as through appropriate phasing of activity, to enable extraction of more than one underground resource in the same area. Where underground conflict could arise, applicants will need to demonstrate, including through use of Interaction Agreements where appropriate, that measures can be implemented to ensure that the safeguarded resource is adequately protected.

New 8.20 Planning guidance and case law makes clear that Minerals Planning Authorities do not need to carry out their own assessments of potential impacts which are controlled by other regulatory bodies. It states that they can determine applications having considered the advice of those bodies without having to wait for the other approval processes to be concluded. The Mineral Planning Authorities will therefore carry out consultation with other appropriate regulatory bodies (such as the Environment Agency, Health and Safety Executive and the Oil and Gas Authority, Mines Inspector) on planning applications which might impact on the safeguarded underground minerals resource, to ensure that the Authorities can be satisfied that sub-surface issues can and will be adequately addressed by other complementary regulatory regimes where relevant.

The last outstanding point that INEOS wishes the Authority and the Inspector to consider relates to :

INEOS disagrees with the proposed revised wording for the following reasons.

The revised wording provides that unconventional oil and gas development will "only" be permitted within the potash MSA in circumstances where the PEDL holder is able to demonstrate either that its proposed operations "will not adversely affect the potential future extraction" of the potash/polyhalite" or that the "benefits" of the relevant unconventional gas development will "demonstrably outweigh" the need to safeguard the resource.

The unqualified reference to "adverse" effect and the use of the word "potential" means that every PEDL operation (no matter the extent of the potential sterilisation effect) would be prohibited thereby leaving the PEDL operator in the extremely difficult position of having to prove to the Planning Authorities the "demonstrable" need for the shale gas that it was looking to exploit (a nigh on impossible task at the exploration and appraisal stages in particular) relative to the need to safeguard the potash/polyhalite resource that would be likely to be sterilised if planning permission for the shale gas proposal were to be granted.

This is a far more difficult test for sub-surface minerals to meet than the one applied under Policy SO2 to safeguarded surface minerals. For these reasons, INEOS would submit that additional flexibility is required in the policy and recommends that the wording of new Policy

So the revised wording proposed by INEOS is as follows:

"SO3 Part 2) – Protecting potash (including polyhalite) resources from other underground minerals development:

Potash (including polyhalite) resources within that part of the Woodsmith Mine permission area, identified on the Policies Map for safeguarding, will also be protected from sterilisation by other forms of underground minerals extraction, deep drilling and the underground storage of gas or carbon in order to protect the resource for the future.

Where proposals for deep drilling or development of underground gas resources or the underground storage of gas or carbon are located within the area safeguarded for potash, (including polyhalite) shown on the Policies Map, permission for development will be granted where it can be demonstrated that the proposed development will not permanently sterilise the potential future extraction of the protected mineral, or the benefits of the proposed development would demonstrably outweigh the need to safeguard the resource or it can be demonstrated that the potash/polyhalite in the

location concerned is no longer of any potential value as it does not represent an economically viable and therefore exploitable resource, or the deep drilling or development of underground gas resources or the underground storage of gas or carbon is of a temporary nature that does not inhibit extraction within the timescale that the potash/polyhalite is likely to be needed."

The additional flexibility sought by INEOS essentially relates to : economic viability of Potash reserves and to instances where there is a temporal difference between development for gas and development for potash.

In terms of Potash economic potential value, given the 100 year nature of the Potash mine permission, it is not considered that any meaningful assessment could be made in the early years of the plan and relating to the later stages of potash development in relation to gas development in the early years of the plan. As such this represents a severe curtailing of the potash safeguarding principle and is unacceptable. The policy still permits such development where it would not sterilise potash resources and where the gas can be proven to be more important. This is considered to be a sensible balancing of the two competing industries for their respective sub-surface resources.

In terms of temporal differences, when deep boring for gas exploration takes place there is a permanent vertical pathway through the geology. In order to minimise the risk of water and gas along the pathway Potash companies have avoided potash reserves around legacy boreholes. Discussions with the existing Potash producer ICL indicate a stand-off distance of 200m to 1000m would be likely to mitigate risk from proximity and effects from any such borehole.

As such, the MPA's consider the additional flexibility sought by INEOS unduly compromises the principle of Potash safeguarding and should not be included in the schedule of main alterations and invite the Inspector to agree.