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VIA EMAIL (rule-comments@sec.gov)

Mr. Brent J. Fields
Secretary
Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549-1090

Re: File Number Release Numbers 33-10098 and 34-78086; File No. S7-10-16
Modernization of Property Disclosures for Mining Registrants

Dear Mr. Fields:

Rio Tinto plc and Rio Tinto Limited ("Rio Tinto", "we" or "our") are pleased to submit the following comments to the Securities and Exchange Commission (the "SEC" or the "Commission") on its proposed rules entitled "Modernization of Property Disclosures for Mining Registrants", SEC Release Nos 33-10098; 34-78086; File No S7-10-16 (Federal Register date June 26, 2016) (the "Release").

Rio Tinto is a leading global mining and metals group that focuses on finding, mining, processing and marketing the earth's mineral resources. We have been in business for more than 140 years and remain focused on a long-term horizon. Our approach is driven by an enduring and proven strategy, which is to invest in and operate long-life, low-cost, expandable operations in the most attractive industry sectors.

Our world-class assets are run by a 55,000-strong workforce spanning more than 40 countries. We produce a diverse suite of minerals and metals that enable the world to grow and develop, and are leading global suppliers in a number of mineral sectors. These products give us exposure to markets around the world, and across the economic development spectrum, from satisfying basic infrastructure needs, through enabling industrial growth and meeting consumer-led demand.

Rio Tinto is governed by a single board of directors, under a dual listed companies structure, with securities listed on the Australian Securities Exchange ("ASX") and the London Stock Exchange ("LSE"). Rio Tinto plc is a foreign private issuer in the United States with American Depositary Shares listed on the New York Stock Exchange ("NYSE"). Rio Tinto files an Annual Report on Form 20-F with the SEC ("Form 20-F").

Rio Tinto appreciates the opportunity to comment on the Release and congratulates the SEC for moving forward in seeking to align the SEC property disclosure requirements for mining registrants with the Committee for Mineral Reserves International Reporting Standards ("CRIRSCO") template. Rio Tinto believes this effort, if it reaches improved alignment with CRIRSCO, will strongly benefit new and current domestic and foreign registrants alike.

Rio Tinto experience under CRIRSCO and SEC Industry Guide 7 ("IG7") reporting

Rio Tinto has long reported Mineral Resources and Mineral Reserves under CRIRSCO-based Codes (for the reporting in Australia and the UK) which use a principles-based approach, and has provided a modified report of Mineral Reserves under IG7 to support its SEC Form 20-F disclosure. Our experience with CRIRSCO principles-based reporting dates back to 1989 when the ASX adopted The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("JORC") as a mandatory reporting code. CRIRSCO reporting concepts are well understood by our UK and Australian market investors and industry analysts.

Rio Tinto fully supports the purpose of the Release, through the proposed substantial revision and update of the property disclosure requirements for mining registrants, to move towards aligned international reporting, based on CRIRSCO standards. For Rio Tinto, this alignment would provide the first opportunity to be able to report its Mineral Resources and Mineral Reserves in accordance with common definitions and standards across each of its market listings, which would be to the advantage of investors and market regulators alike.

Under IG7, the inability of Rio Tinto to report its Mineral Resources has, we believe, disadvantaged our United States investors by obscuring visibility of the substantial work we undertake in Mineral Reserves renewal and replacement in our operations. This identified mineralization which does not meet the threshold for the IG7 Mineral Reserves category, directly supports the growth prospects of our business, but is only visible to our UK and Australian market investors. Furthermore, the lack of alignment, particularly on pricing elements between IG7 and CRIRSCO has, at times, resulted in reporting of substantially different versions of Mineral Reserves for the same operations between the US and our other regulatory filings, causing lack of transparency and confusion among investors that may see different reporting numbers for the same operation.

Rio Tinto believes that these IG7 restrictions have disadvantaged all United States mining registrants, and created uneven disclosure between United States and CRIRSCO-aligned foreign exchanges in the mining sector. It has also effectively discouraged US registration of mining companies, primarily exploration and development stage mining companies with mineral resources under evaluation, many of which have chosen a Canadian or other non-US domicile as an alternative that more fully allows disclosure of growth potential.

Alignment to CRIRSCO key principles

Adoption of a CRIRSCO-aligned definitions and reporting framework would be a strong and positive move forward. There is however a substantial difference between the principles-based reporting under CRIRSCO and the more prescriptive elements added to the CRIRSCO derived framework that the Release proposes. We note that other response letters have made similar comments, including the August 4, 2016 submission by the Society for Mining, Metallurgy and Exploration ("SME"), with which we are generally aligned.

Rio Tinto is concerned that the inclusion of certain prescribed elements and further modification of key definitions and concepts that depart from the CRIRSCO framework will create a situation where common reporting cannot be achieved, and where the SEC filings, while adopting common terminology and qualified person ("QP") sign-off, would report different underlying tonnages and grades in a wide variety of cases. This will unfortunately result in potential confusion on the part of the investors and may well frustrate the laudable purpose of the Release effort. On the other hand, having common standards that are well-understood by global institutional and individual

investors promotes transparency, the ability to ascertain market value, and efficiency in market pricing.

The inherent risk in divergence of definitions is that each change tends to create an unanticipated loophole or potential disclosure gap whereas CRIRSCO alignment will maximize interoperability and provide a clear common basis for reporting across all mining markets.

Thus, Rio Tinto strongly encourages that the SEC strictly adopts the CRIRSCO reporting definitions and template, without additional editing or modification to achieve the intended harmonization of mining property disclosure requirements with global practices and standards. Incorporating the CRIRSO template by reference, would allow global improvements to be included going forward, without misalignment or constant rule-making adjustments or continued investor confusion and disincentives in maintaining a US-based registration. Alternatively, for foreign registrants filing a Form 20-F, it would be highly advantageous to allow such registrants to simply incorporate their current and complying CRIRSCO filings rather than having overlapping and confusing similar, but different, standards layered into the Form 20-F filing.

Specific elements of CRIRSCO misalignment are expanded on below, and more fully in the detailed response table in Appendix 1.

Prescriptive pricing

Under its Form 20-F filings, Rio Tinto has historically been required to apply the IG7 36-month trailing average price test to confirm the economic viability of its Mineral Reserves. For its reporting in Australia and the UK of Mineral Resources and Ore Reserves under JORC, long-term forward looking prices have been adopted, in alignment with CRIRSCO guidance and wider industry practice. This has led to situations where the company reports differing Mineral (Ore) Reserves for a number of operating mines in its Form 20-F and its Annual Report for the reporting in Australia and the UK, particularly when there is high price volatility in the commodity in question. In such cases, Rio Tinto both carries a reporting burden (recalculation of an SEC price input variant for the Form 20-F), and likely creates investor confusion, where two variants of the Mineral Reserve exist for the same mine.

Introduction of a mandatory 24-month trailing price input, applying to both Mineral Resources and Mineral Reserves would create even greater volatility in the disclosures and a significantly greater recalculation and a more onerous reporting burden than the present reporting in accordance with IG7.

Rio Tinto strongly opposes the mandating of a trailing 24-month average price for Mineral Resources and Mineral Reserves estimation. There are a number of fundamental issues with this approach.

1. This is incompatible with the CRIRSCO approach, in which the registrant selects a commodity price and financial inputs aligned to its likely development schedule and forward estimates of market conditions. Rio Tinto avoids the use of both high and low cycle prices for Mineral Resource and Mineral Reserve inputs, and looks to the use of longer term forecasts aligned to the timeframes involved for studies, development and operations.
2. A registrant such as Rio Tinto reporting under CRIRSCO in one market and also in the US under such a proposed rule in the Release could be driven to present fundamentally different Mineral Resource and Mineral Reserve tonnages and grade, both of which would have the same category names and the same QP

signing off. This would confuse the market, and work against the stated goals of harmonization across markets.

3. The anticipated timeframe for identified Mineral Resources to move forward into development can be significant. The mandating of near-term price forecasts would mimic the recent price cycle with little buffering. A Mineral Resource, particularly those with long lead times prior to development could move on and off the reporting list (or shrink and grow significantly) a number of times while still progressing through studies and permitting towards development. This would cause inconsistent disclosure between SEC filings and CRIRSCO market reporting, and may also cause significant legal and technical difficulty with stakeholder engagement and progression of environmental permitting by regulatory agencies and the NEPA/EIS process and attendant legal challenges to permits, increase bonding costs through perceived increased risk exposure and may possibly jeopardize the validity of US mining claims under the US mining law.
4. Many mining operators use a higher price point for reporting of Mineral Resources than Mineral Reserves, to account for both longer time frames and to ensure cut-offs reflecting a range of mining methods, scales and timing options can be evaluated in Mineral Resource options studies. This is established industry practice. Requiring common 24-month based Mineral Resource inputs would likely require full recalculation of all Rio Tinto listed Mineral Resources to comply with this mandated input, effectively duplicating the effort and create a significant reporting burden and cost for the registrant. For reference Rio Tinto reported 101 resource line items in its 2015 CRIRSCO ASX report.
5. Rio Tinto operates across a range of commodities, and the life of mine for our assets can be many decades. The higher volatility of 24-month versus 36-month pricing would create a larger percentage of different Mineral Reserves between markets than already exist under IG7, which is already a source of confusion. Simply through short term price variations, a reported Mineral Reserve, like a reported Mineral Resource, could shrink and grow significantly a number of times prior to completion of mining activities, or prior to commencement of development in the case of a Mineral Resource, all the time while following the same overall mine plan and cut-off strategy. Mine designs do not change with every short term commodity market shift. For reference, we reported 63 line item Mineral Reserves in our 2015 Annual Report. The comment letter by CPM Group LLP submitted to the SEC on August 24, 2016 is useful in showing the amount of volatility this could add in reference to the four metals tested.
6. As with other major mining companies, Rio Tinto makes investment decisions based on long term price trends for the particular commodity. CRIRSCO aligned reporting on this basis is also used to determine asset lives for financial reporting under IFRS. A 24 month price trend does not, we believe, accurately reflect those long term outlooks and may well result in the re-characterization of an economically viable project into one that has either an artificially depressed price analysis, or during high short-term prices, an overly optimistic case that does not accurately reflect the Rio Tinto view on the economic viability, central investment case, or alignment to Rio Tinto long-term strategies. This may well result in either depressed investor outlooks, in the case of short-term low prices, or investor irrational exuberance in the case of short term high prices for the particular commodity.

7. Furthermore, where a company has hedged production, the price realized from the hedging may be quite different than the trailing 24-month average and may be highly material particularly in cases of decreasing metals pricing where favorable hedges have been obtained. It would be helpful to clarify whether the inclusion of hedges would be permitted under the new rules.
8. Finally, this approach would also create an imbalance between commodity sectors in the Rio Tinto filings. Many commodities do not have published trading prices, so this price volatility would impact primarily in traded commodities, given direct off-take contracts tend to be less volatile

Rio Tinto strongly requests the SEC to consider full alignment to the CRIRSCO approach in allowing the registrant to determine, based on appropriate market research, a reasonable forward-looking price basis for generation of Mineral Resources and Mineral Reserves, compatible with CRIRSCO methods.

Under such a CRIRSCO approach, a description of price points and the methodology used to determine them is required to be disclosed. There are recognized exceptions under CRIRSCO for cases where commercial in confidence restrictions may be required in terms of disclosure of contracted pricing points. Also given the scale of Rio Tinto's operations and global supply contribution, publication of pricing could also raise issues of anti-trust price signaling in key commodities. Under CRIRSCO, where the specific price cannot be disclosed for the above reasons, the QP must disclose a description of the price derivation methodology and the basis for the commercial sensitivity.

QP role, independence

The introduction of the concept of a Qualified (Competent) Person, and the requirement for such a professional to sign off on exploration results, Mineral Resources and Mineral Reserves is very strongly supported as a major and important move to align to international practice, and to provide improved and more consistent disclosure and assurance to US investors.

Rio Tinto has long reported under "Competent Person" (JORC equivalent) sign-off for its Mineral Resources and Ore Reserves and has 57 (in the 2015 Annual Report) qualified and experienced professionals fulfilling this role across its development projects and mining operations.

Rio Tinto strongly submits however, that elements of the proposed rules covering the role and responsibility of the QP be revised to seek full alignment with CRIRSCO practices.

For each element in which the proposed definition or requirements of a QP differs from the core CRIRSCO definitions, there is potential to disqualify long established QPs from continuing to fulfill their role.

While the Release does not require independence of QPs, Questions 27 and 28 address the possibility of imposing an independence criteria on QPs. Rio Tinto does not support this. In the 2015 Annual Report, 46 of the 57 QPs reporting on our Mineral Resources and Mineral Reserves were company employees. Adoption of this independence criteria would disqualify them all immediately, and require substantial engagement of consultants, who would then have to start from scratch to become familiar with each project and operation to a level that they could take on the role of QP for reporting, which would result in significant cost and time delays that are not warranted under CRIRSCO practices.

Our estimate, from a standing start, including direct participation in estimation and reporting, is six weeks full time equivalent per QP, per project. This estimate aligns to

our own experience in replacing reporting QPs who leave the business from time to time. To add to this a number of our QP's act for more than one Mineral Resource or Mineral Reserve within their current roles. Rio Tinto also doubts the consulting industry could service this change effectively, and to the appropriate standard given the scale of the shift of accountabilities which may be further acerbated given many production stage registrants have employees acting as QPs.

The potential modification of the experience and membership criteria in the Release should be reconsidered and held aligned to CRIRSCO levels so that a person who is a QP under CRIRSCO should likewise qualify under the Release. We question the risk weighted basis for lifting the criteria level from CRIRSCO levels.

Under CRIRSCO, the recognized professional organization is accountable for vetting tertiary qualifications and industry experience before membership can be attained. Full membership level, along with five years specific experience in the type of deposit or mining approach is required to practice as a QP. One cannot self-declare as a QP without this critical organizational membership and peer acceptance. The professional organizations, to be recognized under CRIRSCO must have power to discipline or expel for ethics breaches.

Rio Tinto strongly recommends that the SEC adopts cross recognition of QP qualification criteria under all associated CRIRSCO codes. Furthermore, as per CRIRSCO definitions, QPs must be individuals, not consulting firms, given the requirement for individual identification, accountability and competence.

We also recommend existing professional societies of good standing across the CRIRSCO approach be adopted by the SEC, and that the qualification criteria for such organizations not be modified from CRIRSCO norms.

Rio Tinto strongly supports identification of QPs by name, employer, deposit of sign-off, and professional association, a practice by which we currently report under JORC in the CRIRSCO approach on the ASX and LSE. An additional element required under JORC and CRIRSCO codes, is the requirement to declare any potential conflict of interest and we support the inclusion of each of these elements in the SEC Release.

Rio Tinto would also request alignment with CRIRSCO codes for QP liability rather than the more onerous liability as proposed in the Release. Rio Tinto endorses the detailed submission by the SME on this issue (section 2.5). It should be recognized that ultimately, the QP would seek to have the registrant indemnify the QP for these liabilities and thus actually imposes additional obligations on the issuer beyond relying on the QP. Mineral Reserves and Resource estimation is by its nature, an inexact science. Where a QP has, for instance, liability for 'material omissions', that may well unduly delay and restrict the ability of the registrant to locate a willing QP, may result in QPs that are in effect 'judgment proof' by reason of their personal financial viability or through indemnities, and may result in unjustified and overly burdensome analysis by a potential QP to examine every potential risk factor, even beyond those in a pre-feasibility study or feasibility study. That may well result in even further restrictions on the ability to finance or develop an otherwise worthwhile project, particularly if a trailing 24-month price was required in support of the analysis.

Consistent with other international standards, the SEC should also allow the QP to disclaim responsibility (limited liability) if they reasonably rely on a report, statement or another expert who is not, and cannot be a QP. The exclusions allowed under the Canadian National Instrument 43-101 for non-engineering and non-geoscience inputs is a useful approach, as the experts in these areas (legal, marketing, community) are not able to qualify as QPs by education and professional registration.

These areas of limited liability should be clearly stated in the report. The proposed approach raises the QPs liability subject to "expert" liability under Section 11 of the Securities Act for any untrue statement or omission of a material fact in the technical report summary to that of the registrant's directors and officers, who must retain overall liability for the statements of their registrant. This "expert" liability would also extend to registration statements for offering of mining registrants in the US. This is inappropriate and not aligned to QP/CP roles in the CRIRSCO approach.

The use of multiple QPs with specific expertise should be accepted and encouraged by the SEC as in the CRIRSCO approach, as an additional control for this issue.

Summary report

Rio Tinto supports the proposed requirement for the disclosure of a technical summary report in support of initial disclosure of Mineral Resources and Mineral Reserves, or material upgrades or changes of exploration results, Mineral Resources or Mineral Reserves for material projects of the registrant.

Rio Tinto already reports such upgrades under JORC requirements and ASX listing rules. These take the form of QP commentary on JORC table 1 criteria on an 'if not why not' basis for sections 1 and 2 for exploration results, sections 1 through 3 for Mineral Resources and 1 through 4 for Mineral Reserves. In addition, the ASX listing rules require a high level plain language summary to be disclosed at the same time. We would also note that the QP must further assess materiality of all elements, so that items not specifically referenced in the JORC criteria list must still be disclosed if material. Rio Tinto submits that this approach requiring the QP to assess and decide, is more appropriate than attempting to prescribe fixed estimation inputs, confidence ranges and methodologies.

In terms of building international reporting alignment, Rio Tinto requests the requirements and formats for such disclosure by the SEC be aligned to CRIRSCO in the home listing of the registrant, such that conforming CRIRSCO disclosures are accepted as technical equivalents by the SEC for the same purposes. This would decrease a potential significant reformatting duplication, and ensure that a common version of disclosure, appropriately signed off by a QP and conforming to CRIRSCO definition would be released in all relevant markets.

Annual reporting formats

In reviewing the proposed annual reporting tables of the Release (Table 1-8, section IV), we find ourselves aligned to the vast majority of the content requirements, but find that the complexity of our business would make reporting into the prescribed formats to likely be confusing and unworkable for investors. This is due to the number of line items in both Mineral Resources and Mineral Reserves reported and the range of commodities. We have commented extensively in the detailed response in Appendix 1 on this, and would suggest the SEC allow flexibility in disclosure formatting, along with the application of materiality assessments appropriate to the established production stage of the registrant.

Other definition shifts of concern

There are a wide range of further departures from CRIRSCO definition and concepts for which we have raised strong objections and have commented on in the detailed response in Appendix 1. These include the proposed introduction of Mineral Reserves reporting at 3 points (in-situ, plant feed, product), and mandating Mineral Resources exclusive of Mineral Reserves only. Furthermore, Rio Tinto suggests capitalization of defined terms (e.g., 'Mineral Resources' rather than 'mineral resources') and formal acceptance of recognized equivalents under the CRIRSCO template (e.g., Qualified Person (QP) as direct equivalent of Competent Person (CP)).

Conclusion

In conclusion, Rio Tinto strongly supports the stated intent of the proposed rules to modernize and align to the established CRIRSCO template and reporting framework. We see this is an important and overdue refresh of market disclosure for mining registrants, which has potential to grow the number of Exploration, Development and Production stage companies who seek to list in the US market.

Rio Tinto is a leading global resources company operating across a wide range of commodities and in many countries, and has had extensive history in reporting under both CRIRSCO requirements in the UK and Australia, and under the existing IG7 rules in the US. Our experience is that misalignment between reporting approaches already adds market confusion and reporting burden for multi market registrants.

The modifications of key elements from core CRIRSCO template, as outlined above and in our detailed response table, would place a considerable financial burden and duplication of our reporting requirements, and likely result in the release of differing and conflicting versions of Mineral Resources and Mineral Reserves across our assets between "SEC" "CRIRSCO" and our established "Australian / UK CRIRSCO" Annual Reports. This would clearly risk the establishment of uneven market valuations and volatility between listings and consequently significant investor uncertainty, and also undermine the credibility of CRIRSCO and/or the SEC requirements across markets as a reporting framework.

We would thus highly recommend that the SEC adopts the updated rule in full alignment to the CRIRSCO template, without additional editing or embellishment, specifically including all detail of terminology definitions, QP controls, defined inputs and reporting formats. Rio Tinto considers that the benefits of this alignment outweigh the perceived risks, given the high degree of acceptance of CRIRSCO reporting across global markets. We believe it would afford the necessary investor protection and clarity of disclosure, would greatly lessen both the confusion to the investor from different global reporting standards and would greatly reduce the reporting burden on the multi-jurisdictional mining companies such as Rio Tinto.

We appreciate the opportunity to provide these comments and would be pleased to discuss them further with the Commission. Any questions regarding our comments may be directed to Steve Hunt (Chief Advisor Resources and Reserves, email: [redacted] or [redacted]).

Yours sincerely,

Debra A. Valentine
Group executive, Legal & Regulatory Affairs

Comment number	SEC Question	Response
1	The Commission's current mining disclosure regime consists of disclosure requirements located in Item 102 of Regulation S-K and disclosure policies located in Guide 7. Has this disclosure regime caused uncertainty for mining registrants? If so, would establishing a sole regulatory source for mining disclosure by rescinding Guide 7 and including the disclosure requirements for mining registrants in a new Regulation S-K subpart, as proposed, reduce this uncertainty?	Establishing a single reference point for disclosure requirements and policies would be advantageous and represents an opportunity to align US reporting requirements with established international industry approaches and definitions. IG7 and the regulations are silent on disclosure on key risk areas, which have been historically supplemented by engineering guidance. The disallowance of reporting Mineral Resources in the US market by foreign (non-Canadian) registrants has created inconsistent disclosure between markets and uncertainty for their investors The adoption of CRIRSCO aligned reporting definitions, including Qualified persons sign-off and the ability to report Mineral Resources will allow reporting to the SEC to be aligned to what investors in other jurisdictions can access.
2	Should we amend Item 102 of Regulation S-K by eliminating the instruction that refers mining registrants to the information called for in Guide 7 and instead instruct them to refer to, and if required, provide the disclosure under new Regulation S-K subpart 1300, as proposed? Should we instead retain Guide 7 and Item 102 of Regulation S-K as separate sources for mining disclosures? If so, how should they apply to registrants?	IG7 should be replaced by the new regulation S-K, subpart 1300. The new regulation should seek to align fully to the CRIRSCO template and definitions to allow the maximum alignment between international reporting environments for foreign registrants like Rio Tinto. This will advantage investors and the SEC, by providing a basis for registrants to fully disclose their Mineral Resources as well as their Mineral Reserves, as is the case in other regulatory environments.
3	Should the disclosure standard under the revised mining disclosure rules be whether a registrant's mining operations are material to its business or financial condition, as proposed? Why or why not? If not, what standard should we adopt for determining whether a registrant must provide the mining disclosure under the revised rules? Why?	Yes, disclosure requirements should be based on the materiality of the mining operations or development project to the registrant, though there is a need to apply flexibility in the determination. Both quantitative and qualitative measures should be assessed, as should alignment to CRIRSCO definitions. In order not to confuse Rio Tinto investors, it is important that reporting requirements align across jurisdictions.
4	Are the quantitative and qualitative factors described in this section relevant to the determination of the materiality of a registrant's mining operations? Why or why not? Are there other factors, such as those identified in Canada's Companion Policy 43-101CP to National Instrument 43-101, General Guidance, that a registrant should consider for the materiality determination instead of or in addition to the factors described in this section? Should we include these or other factors as part of the rule provision governing the materiality determination? If so, which factors should we include in the rule?	Alignment to other international requirements for materiality requires disclosure of both financial and technical aspects. Both should align to established international guidance. 1. Financial reporting (e.g. IFRS, FASB) requirements. 2. CRIRSCO guidance regarding materiality (SME, JORC, etc.) Rio Tinto would not support development of a materiality rule that required the SEC reported information for its operations and major projects being different than that required under its other listings in the UK and Australia. This could potentially confuse investors.
5	Should we adopt the proposed presumption that a registrant's mining operations are material if they consist of 10% or more of its total assets? Would a percentage higher or lower than 10% be better than the proposed threshold? Why or why not? Should it be a presumption, as proposed, or should it be a bright line requirement? If the former, how might the presumption be rebutted? Is there another quantitative factor, such as revenues, that a registrant should consider instead of or in addition to the proposed asset test?	This is a high threshold. Rio Tinto in its Form 20-F submissions has historically reported Ore Reserves for all stand-alone operations across its commodities. For large groups like Rio Tinto, few single assets may breach this level. Currently no single mine accounts for this percentage of group value. While asset value is a useful parameter, guidance based on this should not be prescriptive, given that contributions to earnings and value from particular operations vary with commodity price and mine plan variations. A strict application of a percentage threshold could see operations disappear and reappear at different times in the price cycle, leading to inconsistent disclosure between markets and potential investor confusion. Revenue based criteria are also problematic, as significant development projects would not be captured (not yet in production so no revenue). Mineral Resources projects have no earnings.

6	When assessing the materiality of its mining operations, should we require a registrant to aggregate all of its mining properties, regardless of size or type of commodity produced, including coal, metalliferous minerals, industrial materials, geothermal energy, and mineral brines, as proposed? Why or why not? Should we exclude any of the specified commodities from the proposed aggregation requirement? If so, which commodities and why?	Rio Tinto supports aggregate reporting of mine operations to logical production hubs, based on shared infrastructure and product integration. Aggregation is only carried out if the hub components are in the same region. Stand-alone operations in a region are always reported separately. Aggregation by industry sector for materiality testing is appropriate, and supported, though only for connected operations elements. Aggregation across regions and commodities is not aligned with CRIRSCO approaches.
7	When assessing the materiality of its mining operations, should we require a registrant to include, for each property, as applicable, all related activities from exploration through extraction to the first point of material external sale, including processing, transportation, and warehousing, as proposed? Why or why not? Is "the first point of material external sale" the appropriate cut-off or should we use some other measure? Are there certain activities that we should exclude from the materiality determination, even if they occur before the first point of material external sale? If so, which activities, for which minerals or companies, and why? Are there certain activities after the point of first material external sale that we should include? If so, which activities, for which minerals or companies, and why?	First point of external sale is an appropriate industry standard.
8	Are there specific qualitative or quantitative factors relating to the environmental or social impacts of a registrant's properties or operations that a registrant should consider in making its materiality determination?	As per CRIRSCO definitions of modifying factors, social and environmental considerations are material items to be considered and disclosed when reporting Mineral Reserves and Mineral Resources.
9	Should we require vertically-integrated companies, such as manufacturers, to provide the disclosure required under new Regulation S-K subpart 1300, as proposed? Why or why not?	If their mining operations are a material sector of their business, Rio Tinto believes they should be reported.
10	Should we require a registrant with multiple properties to provide the disclosure required by proposed Regulation S-K subpart 1300, as proposed? Why or why not? Should we require a registrant with multiple properties, none of which is individually material, but which in the aggregate constitute material mining operations, to provide only summary disclosure concerning its combined mining activities, as proposed? Why or why not?	The materiality of each operation should be assessed in the first instance, and material stand-alone operations should be disclosed separately. Aggregation across countries or regions by mineral etc. is not supported, as this does not allow the investors to understand the basis of individual operations and their contribution. As noted in 6 above, aggregation of disclosure to regional mining hubs (shared infrastructure and management) is appropriate and should be supported (as in CRIRSCO reporting).
11	Are there difficulties that a registrant with multiple properties could face when determining if disclosure is required under the proposed rules? If so, how should our mining disclosure rules address such difficulties?	As noted in 6, 10 above, aggregation of disclosure to regional mining hubs (shared infrastructure and management) is appropriate and should be supported (as in CRIRSCO reporting).
12	Should we require more detailed disclosure about individual properties that are material to a registrant's mining operations, as proposed? Why or why not?	The disclosure of detailed information for material properties is required under CRIRSCO reporting for Rio Tinto's other listings, so it has no objection to disclosing the same level of information to the SEC.
13	Should we require a royalty company, or a company holding a similar economic interest in another company's mining operations, to provide all applicable mining disclosure if the underlying	Royalty companies and non-managing participants in Joint Venture companies may not have direct access to the supporting technical data or QP's of their own, but should provide Resources and Reserves reporting summaries including

	mining operations are material to its operations as a whole, as proposed? Why or why not? Should disclosure for such companies be required under other circumstances?	back reference to the source disclosure (technical and annual filings, QP identification) .of the operating mining registrants for properties in which they have a material economic interest..
14	Should we permit a royalty company, or other similar company holding an economic interest in another company's mining operations, to provide only the required disclosure for the reserves and production that generated its royalty payments, or other similar payments, in the reporting period, as proposed? Why or why not? If not, what additional disclosure should be required by such registrants?	Yes, as in 13 the disclosure of a Mineral Resources and Mineral Reserves summary is appropriate, referencing the data and QP reference provided to the market by the producing registrant.
15	Should we require a royalty company, or other similar company holding an economic interest in another company's mining operations, to describe its material properties and file a technical report summary for each such property, as proposed? Should we allow a royalty or other similar company to satisfy the technical report summary requirement by incorporating by reference a current technical report summary filed by the producing mining registrant for the underlying property, as proposed? Are there circumstances (e.g. when a royalty company purchases a royalty agreement and is not reasonably able to gain access to such information) in which a royalty or similar company should not be required to file a technical report summary concerning the underlying property?	Royalty companies or similar entities typically do not have direct access to the underlying operations, or the technical and management detail to comply with this. Reporting is the primary responsibility of the operating entity, and so they bear the direct responsibility to all of their shareholders and their market regulator. In such cases, the registrant should provide a summary of mineral resources and mineral reserves, and provide reference to the location of the technical reports filed by the producing mining registrant in their home market.
16	Should we define "exploration stage property," "development stage property" and "production stage property," as proposed? Why or why not? Would these definitions facilitate compliance by registrants with properties in more than one stage of operation?	The proposed definitions for Exploration and Operations stages are clear and acceptable, but should be cross referenced to align to existing CRIRSCO guidance. Rio Tinto does not agree with the proposed Development stage definition for the reasons set out below. The proposed definition of a development stage property is '….includes all registrants engaged in the preparation of a determined commercially minable deposit (reserves) for its extraction which are not in the production stage.' The proposed guidance sets the trigger point for moving to development stage status as the declaration of an ore reserve and implies that such declaration requires a commercially minable deposit. We would note that the definition of a reserve under the JORC code requires development to be 'economically feasible' which the Group considers to be a lower hurdle than 'commercially minable'. Rio Tinto's trigger for classification as a development stage property for its reporting is that the Group has determined that the property is commercially viable and therefore has approved the project for development. As context, the Group would regard a reserve as only being the basis for a project until the Group's senior management has assessed the timing and commercial viability of the project more widely in terms of risks, priorities, capital availability and other factors. After this they will decide whether to mine or sell the project. The Group may therefore incur evaluation expenditure on a project in order to determine commercial viability after the establishment of reserves and prior to the decision to mine. This expenditure refines the assumptions within the development case to maximise the project's return and to ensure that the Group's criteria for investment are met. The Group considers that the proposed definition of a

		development stage property as a property for which there are declared reserves may be misleading to investors in that investors may assume that if a property is classed as a development property then the entity has taken a decision to develop the property. Classification as a development property may also have implications for IFRS reporting. The references at the bottom of page 28 of the proposed guidance 'Further, providing definitions that apply to specific properties would align the disclosure requirements with current accounting practices under U.S. GAAP and International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).Conforming the definitions in the proposed requirements to the applicable accounting practice should benefit both registrants and investors by providing a consistent framework for the presentation of financial and property disclosures, thereby reducing compliance burdens and facilitating comparability.' may be read as implying that IFRS 6 'Exploration and evaluation of mineral resources' specifies declaration of reserves as the end of the exploration and evaluation phase. Whilst IFRS 6 does focus on individual properties as noted by the guidance, it determines the point at which an entity moves out of the standard as '….the point at which the technical feasibility and commercial viability of extracting a mineral resource are demonstrable'. The standard does not define 'development' or 'commercial viability' nor does it cite the declaration of reserves as a trigger factor for moving out of the standard. The Group does not consider that the proposed definitions would align with IFRS therefore.
17	Should we also revise the definitions of "exploration stage issuer," "development stage issuer" and "production stage issuer," as proposed? Why or why not? Should the definition of "development stage issuer" and "production stage issuer" depend on having "at least one material property", as proposed? Should we instead base the definitions on consideration of the characteristics of all mining properties? For example, if a registrant has a single development- stage material property that constitutes 10% of its mining assets, with the remainder of the mining assets all constituting exploration stage properties, should the registrant be able to identify itself as a development stage issuer?	The proposed definitions for Exploration stage issuer and Operations stage issuer are clear and acceptable, though Rio Tinto does not agree with the proposed Development stage definition as noted in 16 above.
18	Would the two proposed sets of definitions appropriately classify the particular stage of a registrant's mining operations? Should the definitions be property-based and dependent on whether mineral resources or reserves have been disclosed, are being prepared for extraction, or are being extracted, as applicable, on one or more material properties? Would having two proposed sets of definitions create unnecessary complexity or investor confusion?	The two sets of definitions would allow both the status of the company and of the particular property to be made clear to investors, notwithstanding comments made in 16 above.. Rio Tinto, while a long established production stage company, also has significant exploration and development stage properties. A property based definition would allow this to be clearly disclosed on a project by project basis.
19	Should the proposed rules specify that a registrant that does not have mineral reserves on any of its properties, even if it has mineral	This is an appropriate restriction. Pilot scale or trial mining occurs during development phases and this can result in test parcels entering the market for evaluation, though this does not constitute formal production. The issuer stage definitions should

	resources or exploration results, or even if it is engaged in extraction without first disclosing mineral reserves, cannot characterize itself as a development or production stage company, as proposed? Why or why not?	apply. This could, however, be problematic with the trailing 24 month price – it may result in a producing company not being able to report 'reserves' because it doesn't meet the 24 month economic test, but yet is producing in commercial quantities and making a profit.
20	Should we require, as proposed, that the determination of mineral resources, mineral reserves and material exploration results, as reported in a registrant's filed registration statements and reports, be based on and accurately reflect information and supporting documentation prepared by a qualified person? Why or why not? Would imposing a qualified person requirement help mitigate the risks associated with including disclosure about a registrant's mineral resources and exploration results in SEC filings, given that mineral resources and exploration results reflect a lower level of certainty about the economic value of mining properties? Why or why not?	Rio Tinto supports the publication of Explorations Results and Mineral Resources, based upon the supporting documentation and sign-off of a Qualified Person. Rio Tinto reports on this basis under its UK and Australian listings under the JORC Code (CRIRSCO framework). Our experience is that reporting under the CRIRSCO framework with sign-off provides investor access to the appropriate level of assurance and disclosure on both operations and developing opportunities. Under IG7, US investors have not previously had access to the same information as investors with our other international listings, and this has disadvantaged them, by not providing appropriate visibility of the company's growth projects and resource development programs, rather than just its current operations. Advanced resource projects at current operations have also been not visible to US investors under IG7, meaning that historically, investors could not determine both risks and opportunities associated with an asset (e.g. advanced resources under evaluation as life of mine extension options).
21	Should the registrant be responsible for determining that the qualified person meets the qualifications specified under the new subpart's definition of "qualified person" as proposed? Why or why not? If not the registrant, who should be responsible for this determination?	The registrant should assure themselves that the Qualified Person is technically qualified and appropriately experienced for the reporting role as per the rules. The QP is also bound under CRIRSCO codes to ensure they are appropriately qualified, experienced and current members of a recognised professional organisation with clear ethics processes. In this way, both the QP and registrant have clear accountabilities.
22	Should we, as proposed, require a registrant to obtain a technical report summary from the qualified person, which identifies and summarizes the information reviewed and conclusions reached by the qualified person about the registrant's exploration results, mineral resources or mineral reserves, before it can disclose those results, resources or reserves in SEC filings? Why or why not? Should we instead require a registrant to obtain an unabridged technical report, rather than a technical report summary, before it can disclose exploration results, mineral resources or mineral reserves in SEC filings? Should we require the technical report summary to be dated and signed, as proposed? Why or why not?	A technical report summary, dated and signed off by a qualified person, should be generated and provided to the registrant ahead of publication of exploration results, Mineral Resources or Mineral Reserves. This is a requirement under all CRIRSCO codes and should be adopted under the new rules. Furthermore, this should be applied in the home format of the registrant, allowing for cross recognition of CRIRSCO QP/ CP reporting roles and formats. The underlying 'Table 1' format in these codes provides a reference point for criteria which must be commented upon, ensuring that material items are not omitted from commentary. An unabridged technical report should not be required as the threshold to publication. This is not the case under any of the CRIRSCO codes, where in the interest of timely disclosure a technical summary is the threshold. The technical report should be signed and dated.
23	If we require, as proposed, that a registrant obtain a technical report summary from the qualified person, should we also, as proposed, require that the registrant file the technical report summary as an exhibit to the relevant registrant statement or other Commission filing when one is required? Why or why not?	Filing of the technical report summary is a requirement under CRIRSCO codes, with the trigger being first release or a material change to exploration results, Mineral Resources or Mineral Reserves. Rio Tinto reports under the JORC code and ASX listing rules in this way with its Australian and UK listings, and would not object to reporting the same supporting detail with its SEC disclosure in future.
24	Should we require, as proposed, a registrant to file the technical report summary when the registrant is disclosing mineral reserves, mineral resources or material exploration results for the first time or when there is a material change in the mineral reserves, mineral resources or	Rio Tinto supports that the trigger for technical report summaries should be for material projects, first release or material change to exploration results, Mineral Resources or Mineral Reserves as per CRIRSCO criteria. Depletion of mineral reserve through mining is not a material change trigger under these criteria.

	exploration results from the last technical report filed for the property? Why or why not? Should we instead require a registrant to file the technical report summary more frequently, such as with every Commission filing, or less frequently?	Harmonisation with CRIRSCO would ensure US investors are provided with the same level of information and assurance that international investors now receive. Rio Tinto would question how the transition to first time reporting of Mineral Resources in the US would be handled, given that this supporting information is already available in other jurisdictions and is updated as new data and studies are completed. The trigger to file a new report should be material change based upon new information or analysis, not time elapsed since prior reporting. A period of transition would be required for the supporting technical reports to enter the market through regular updates.
25	Should we require, as proposed, a registrant to obtain the written consent of the qualified person to the use of the qualified person's name and any quotation or other use of the technical report summary in the registration statement or report prior to filing the document publicly with the Commission? Why or why not?	Rio Tinto supports that, as per all CRIRSCO codes, the qualified person should sign off with written consent and be clearly identified in the filing.
26	Should we require that a registrant identify the qualified person that prepared the technical report summary and disclose whether the qualified person is an employee, as proposed? Why or why not? Should we also require a registrant to name the qualified person's employer if other than the registrant, and disclose whether the qualified person or the qualified person's employer is an affiliate of the registrant or another issuer that has an ownership, royalty or other interest in the property that is the subject of the technical report summary, as proposed? Why or why not?	As per CRIRSCO, the qualified person's name, relationship to the registrant (employee, consultant, contractor, etc.) and professional association membership should be provided. Rio Tinto publishes the name, employer and professional affiliation of each of its Competent Persons (QP) under JORC for its UK and Australian listings.
27	Should we require a registrant to state whether the qualified person is independent of the registrant? Why or why not? If we were to require the registrant to state whether the qualified person is independent of the registrant, should we define "independent" for purposes of that requirement? If so, how? For example, should we base the definition of independence on comparable provisions under Canada's NI 43-101? Similar to the Canadian provisions, should we provide examples of when a qualified person would not be considered to be independent? If so, what examples should we provide? Alternatively, similar to the Commission's rule regarding when an accountant is not independent, should we provide that a qualified person is not independent if the qualified person is not capable of, or a reasonable investor with knowledge of all relevant facts and circumstances would conclude that the qualified person is not capable of, exercising objective and impartial judgment on all issues encompassed within the qualified person's engagement? Are there any other alternative standards on which we should base a definition of independence for the purpose of the qualified person requirement?	Rio Tinto does not support a requirement for qualified persons to be independent of the registrant, but does, as noted in 26, support the identification of the qualified persons employer and name, and professional association membership. Rio Tinto also supports, as required under clause 9 of JORC (2012), the requirement that qualified persons must disclose any potential conflicts of interest. Independence, while a requirement under NI 43-101 is not a core CRIRSCO principle. The primary control remains a requirement for qualified and identified QP's, who must be professionally affiliated to an organisation with strong ethics sanctioning powers. In its 2015 Annual Report, Rio Tinto has listed the names, employer and professional association of 57 competent persons (JORC) used by the company across its mines, development projects and JV's, 46 of which were direct employees of the company. A requirement for independent qualified persons would be a significant financial and compliance burden, which would not improve the risk profile. The 46 employed professionals acting as QP's in Rio Tinto are typically directly responsible for updating mining plans and studies as new information comes to hand, and are well experienced and aligned to the deposit knowledge and risk profiles of the operations of which they are reporting. Independent QPs would, if required, effectively duplicate the same work on the same inputs, at significant cost and effort for zero net benefit. Rio Tinto internal processes include programs of QP support and training, independent audit of Mineral Resources and Mineral Reserves (refer 116) supported by peer review processes.

28	Should we require that a registrant's disclosure of exploration results, mineral resources or mineral reserves in a SEC filing be based on the determination of a qualified person that is independent of the registrant? If so, should we impose such a requirement only under certain circumstances, such as when the filing discloses resources or reserves by the registrant for the first time; a material change in previously disclosed resources or reserves that has occurred or is likely to occur; or a 100% or greater change in the total mineral resources or reserves on a material property, when compared to the last disclosure? In each case, why or why not?	Rio Tinto does not support this proposal for the independence of qualified persons, as per 27 above.
29	Alternatively, rather than requiring the qualified person to be independent, should we require, when the qualified person is affiliated with the registrant or another entity having an ownership or similar interest in the property, that a person independent of the registrant and qualified person review the qualified person's work? If so, what qualifications should the independent reviewer possess? If we require an independent review when the qualified person is affiliated with the registrant, should the review be for all disclosures of mineral resources, mineral reserves and material exploration results, or only those that are related to material properties? Should this review be required only in certain circumstances, such as when the filing discloses resources or reserves by the registrant for the first time; a material change in previously disclosed resources or reserves that has occurred or is likely to occur; or a 100% or greater change in the total mineral resources or reserves on a material property, when compared to the last disclosure? Should we instead adopt an independent review requirement for the work of an affiliated qualified person in all circumstances? In each case, why or why not?	Independence, while a requirement under NI 43-101 is not a core CRIRSCO requirement. As such, Rio Tinto does not support this proposal for independent QP's, as per 27 above. All conflicts of interest or potential conflicts by a qualified person must be disclosed as per CRIRSCO codes requirements. A company that fails to disclose conflict of interest is also in breach of internal controls (refer to 116, 117). Rio Tinto internal processes include programs of independent audit of Mineral Resources and Mineral Reserves (refer 116) supported by peer review processes.
30	Should we require the registrant to disclose any material conflicts of interest that could reasonably affect the judgment or decision making of the qualified person, such as material ongoing business relationships between the registrant and the qualified person or the qualified person's employer?	Rio Tinto supports, as required under clause 9 of JORC, the requirement that qualified persons are required to disclose any potential conflicts of interest. This is very important to provide assurance of appropriate professional judgment and standards. A QP who fails to disclose conflict of interest is in breach of their professional association's by-laws and risks professional deregistration and sanction.
31	Would the proposed technical report summary filing requirement impose a significant burden on registrants? If so, which registrants and why? Are there changes that we could make to this proposed requirement to alleviate any such burden?	Rio Tinto would support filing of technical report summaries as aligned to current CRIRSCO Table 1 reporting triggers (first release or material change), and does so under its JORC reporting obligations in both UK and Australian markets currently. Rio Tinto submits that such complying technical summaries as per the home listing of the company (JORC, SAMREC, NI 43-101) be recognised by the SEC as meeting this requirement. Rio Tinto would not support extension of such reporting to all properties on an annual basis as this would be a significant burden beyond current international standards. There would be an increased burden for US based registrants who have not reported such detail prior, including sourcing appropriate qualified persons, but little burden for registrants

		already reporting under CRIRSCO aligned codes.
32	Should we define a qualified person in part to be a mineral industry professional with at least five years of relevant experience in the type of mineralization, as described here and in the proposed rule, and type of deposit under consideration and in the specific type of activity that person is undertaking on behalf of the registrant, as proposed? Why or why not? Should we specify the particular type of professional, such as a geologist, geoscientist or engineer, required under the definition? The years of experience required under the proposed definition are consistent with the CRIRSCO-based codes. Is five years the appropriate number of years to constitute the minimum amount of relevant experience required under the definition in our rules? Should we require a lesser or greater number of years of relevant experience (e.g., 3, 7, or 10 years)?	Rio Tinto supports this definition as it aligns to CRIRSCO international definitions and global industry practice. Five years' relevant experience is aligned to CRIRSCO code definitions. A higher or lower threshold would either qualify or disqualify practicing qualified persons from the US market, leading to inconsistency of Mineral Resource or Mineral Reserves statements reported in multiple jurisdictions. Given international differences in professional qualifications, titles and courses (in some countries, geoscientists have engineering degrees) this is best left to the professional society to manage through its admission criteria. Qualification of the tertiary education is assessed by the professional society in order that professional membership grade and registration can be established, followed in each instance by the relevance of the experience to the task. In addition to professional qualification and membership, a qualified person must also assess, before accepting an appointment, that they can face their professional peers and demonstrate competence in the commodity, type of deposit or situation under consideration.
33	Should we define a qualified person to be an individual, as proposed? Or should we expand the definition, in cases where the registrant engages an outside expert, to include legal entities, such as an engineering firm licensed by a board authorized by U.S. federal, state or foreign statute to regulate professionals in mining, geosciences or related fields? Why or why not? If we expand the definition in this manner, should the firm or the responsible individual sign the technical report summary and provide the required written consent? Similarly, what professional experience should be required and how would a firm satisfy the professional experience requirement? Should we adopt qualified person requirements for firms that are different than the proposed requirements for individual qualified persons? If so, what should these requirements be?	To comply with international industry approaches, a qualified person must be an individual. This is well established and understood practice, as they are putting their professional reputation behind the statement and sign-off. A consulting firm is not held to professional standards as is a registered individual. Professional associations have no ability to sanction a company, and most have no mechanism for corporate 'membership'.
34	Do the proposed instructions provide the appropriate guidance for what may constitute the requisite relevant experience in the particular activity involved and in the particular type of mineralization and deposit under consideration? Is there different or additional guidance that we should provide in this regard?	Rio Tinto supports the proposed instructions, as they are well aligned to established CRIRSCO template guidance.
35	Should we define a qualified person in part to be an eligible member or licensee in good standing of a recognized professional organization at the time the technical report is prepared, as proposed? Why or why not? Should we require an organization to meet the six criteria specified in the proposed definition in order to be a recognized professional organization, as proposed? Should the definition of a qualified person take into account whether, and the extent to which, a person has been disciplined by their professional organization? If so, how? Should the definition specify that the organization	Yes, as per CRIRSCO requirements professional membership is a pre-requisite. To qualify, the professional association must have the power to • verify professional education and training standards of proposed members, • sanction members in breach of ethics or reporting code breaches, regardless of where the member is practicing or the deposit location, • provide evidence that they have an active ethics review committee and processes, and • have a history of acting on verified complaints after investigation. In all CRIRSCO jurisdictions, the governing committee verifies compliance to the above criteria and approves a list of recognised organisations.

	must require, rather than require or encourage, continuing professional development? Are there different or additional criteria that we should require for an organization to be a recognized professional organization?	QP's who have breached ethic or code requirements may or may not remain endorsed for sign-off based on the degree of breach and sanction and whether their membership has been rescinded. Members banned by one organisation for ethics breaches should not be able to enrol in another to work around such sanction. The CRIRSCO codes group works together to manage this risk. Continuing professional development is to be encouraged, but should not be mandatory. Approaches to this issue are best managed by the professional societies.
36	What factors should we consider in determining whether a professional association is recognized as reputable with regards to the definition of a recognized professional organization? Are the examples we provided appropriate factors for determining whether a professional association is recognized as reputable or are other factors more appropriate? Should any of these factors be incorporated into the final rules?	See 35.
37	Instead of the proposed flexible approach, should we require that a qualified person be a member of an approved organization listed in an appendix to the mining disclosure rules or in a document posted on the Commission's website? If so, how should the Commission determine which organizations to approve and how frequently should the Commission update the approved organization list?	Professional organisations grow, merge and dissolve from time to time, particularly smaller regional groups who may have trouble maintaining sufficient members to maintain standards and momentum. Review against criteria is recommended. This approach is practiced by all the CRIRSCO code groups, whose cross recognition list is maintained on a register.
38	Should we, as proposed, require a registrant to disclose the recognized professional organization(s) that the qualified person is a member of, and confirm that the qualified person is a member in good standing of the organization(s)?	Yes, in all cases.
39	Are there different or additional conditions that a person should have to satisfy in order to meet the definition of qualified person? For example, should we require that a person have attained a particular level of formal education (bachelor's degree, master's degree, or doctorate) in order to be a qualified person? If so, what level of education would be appropriate? Would such a minimum education requirement disqualify a significant percentage of persons from being considered as qualified persons who otherwise possess the requisite relevant experience?	Professional membership, 5-year appropriate *minimum relevant* experience and a bachelor's degree in the appropriate discipline is the CRIRSCO requirement and should be maintained. This would not disqualify any QP/CP currently practicing in another CRIRSCO environment. Requiring higher level degrees could see significant numbers of existing CRIRSCO qualifying QP's with 20-30 years' industry experience disqualified from practice for US reporting, and would not improve the quality of reporting.
40	Is the definition of qualified person too restrictive, thus increasing the cost and difficulty associated with finding a qualified person? Alternatively, should the definition be more restrictive, to help ensure a qualified person has an appropriate level of training and expertise? In either case, why?	Rio Tinto supports the proposed definitions of qualified person, as it is well aligned to international practice through CRIRSCO.
41	Instead of prescribing qualifications for the qualified person, should we instead require a registrant to provide detailed disclosure regarding the qualifications of the individual who prepared the technical report summary? Why or why not?	Qualification through minimum bachelor's degree, 5 years' appropriate experience levels and professional association membership is a valid approach, as per CRIRSCO.
42	Should we require a registrant to disclose material exploration results for each of its material properties, as proposed? Why or why not?	Exploration results disclosure should only be required for material results and material properties, and then in alignment to the CRIRSCO code reporting minimums (Table 1, QP sign-off) for Exploration stage registrants. This is material information for

	Alternatively, should we permit registrants to provide exploration results in a summary form?	investors and should be released. For large Production stage registrants such as Rio Tinto, ongoing development activities at operations are typically not reported as exploration results unless beyond a materiality threshold. This is due to the huge volume of this activity at a group level and the immateriality of individual results. Once initial resources or material updates are released however, the exploration results support is included as a summary technical report release as per CRIRSCO requirements.
43	Should we define exploration results as data and information generated by mineral exploration programs (i.e., programs consisting of sampling, drilling, trenching, analytical testing, assaying, and other similar activities undertaken to locate, investigate, define or delineate a mineral prospect or mineral deposit) that do not form part of a disclosure of mineral resources or reserves, as proposed? Why or why not? Are there other characteristics that we should include in the definition of exploration results? Are there other activities that we should include as examples of mineral exploration programs? Are there activities that we should exclude as examples of mineral exploration programs?	Rio Tinto submits that the CRIRSCO definitions of exploration results should be adopted so registrants operating across multiple jurisdictions can report in a consistent and unambiguous way to the market. The definitions must be expanded to include mapping, remote sensing and geophysical program reporting. The status of exploration tenure and a summary of previous activities on the property should also be required for disclosure.
44	What are the risks that could result from requiring disclosure of material exploration results? Should we prohibit the use of exploration results to derive estimates of tonnage, grade, and production rates, or in an assessment of economic viability, as proposed? Why or why not? Would prohibiting the use of exploration results for these purposes, as proposed, adequately protect investors from the increased risk associated with including information having a lower level of certainty about the economic value of mining properties?	Reporting of exploration results under the sign-off of a QP and following CRIRSCO guidance is appropriate. Use of Table 1 criteria under a 'if not why not' comment approach (as per JORC) to support a technical summary is useful in ensuring balanced commentary. Exploration results are the formal data points used to develop Mineral Resource estimates: they are not in themselves uncertain. This distinction must be maintained. Disclosure of exploration program progress should be encouraged, while promotion of early stage conclusions based on the available data must be managed and restricted. There are specific clauses in the CRIRSCO codes to manage this through exclusions, such as prohibition of the use of exploration results to support production estimates and restricted disclosure of exploration targets, that are not yet of Mineral Resource classification or standard.
45	When determining whether exploration results are material, should a registrant consider their importance in assessing the value of a material property or in deciding whether to develop the property, as proposed? Why or why not? Are there other circumstances that would better define when exploration results are material? If so, what are those circumstances?	The degree to which exploration results are material is related to both the exploration results, the portfolio and stage of the registrant. A drill hole program for an Exploration stage registrant on their primary property would be material, but the same tenor of results for a Production stage registrant on an existing mine property are not material. A materiality test must be applied The materiality definition should align with the CRIRSCO template in that a public report should contain all relevant information which investors and their advisors would reasonably require to make a reasoned and balanced judgement.
46	We are proposing to require the disclosure of material exploration results for each material property. Should we also require disclosure of material exploration results when the registrant has determined that it has in the aggregate material mining operations but no individual properties are material? Would disclosure of material exploration results for its properties in the aggregate (when none is individually material) provide additional meaningful disclosure for investors? If so, how should a registrant disclose such exploration results?	As per 45, the materiality of the results should be assessed against the development stage of the property and the registrant's portfolio. For Rio Tinto, disclosure of results for each material property would be an onerous task and provides little information of use to investors. Unless related to a significant new discovery (a materiality trigger), Rio Tinto does not regularly report individual property exploration results ahead of the more detailed disclosure supporting the release of Mineral Resources in its CRIRSCO reporting. This is in alignment to the materiality provisions provided under CRIRSCO.

	Should it provide such results in summary form? Or should it provide detailed disclosure about all material exploration results for all of its properties?	
47	Should we require a registrant with material mining operations to disclose mineral resources in addition to mineral reserves, as proposed? Why or why not?	Rio Tinto supports the requirement to report Mineral Resources as well as Mineral Reserves for material mining properties. The resource component is useful to investors in understanding the potential asset life and forward development options still under development.
48	What are the risks that could result from requiring a registrant with material mining operations to disclose its mineral resources? How could the Commission mitigate those risks?	Rio Tinto believes there is no risk. Reporting both Resources and Reserves to market is established practice in most markets, and is well understood by investors.
49	Under the proposed rules, a registrant with material mining operations could choose not to engage a qualified person to determine whether a mineral deposit is a mineral resource, with the result that the registrant would not be required to disclose mineral resources that may exist. Should the rules, as proposed, preclude a registrant from disclosing mineral resources in an SEC filing if it has elected not to engage a qualified person to make the resource determination? Alternatively, should the rules permit a registrant to disclose mineral resources in an SEC filing, despite not having engaged a qualified person to make the resource determination, in certain instances? If so, in what instances would it be appropriate to permit such disclosure?	Rio Tinto strongly encourages the SEC to only allow Mineral Resources to be reported if they have been estimated and signed off by a qualifying QP. Given that the registrant will have had requirement to engage a QP for the Mineral Reserves declaration, the additional burden to report the Mineral Resource is minor. The decision not to publish a Mineral Resource for a material mining property should be left to the registrant to decide. There are valid cases where there is no longer material Mineral Resource additional to Mineral Reserves for mining operations, especially in mature operations.
50	Should we define the term "mineral resource," as proposed? Why or why not? In order for material to be classified as a mineral resource, should there be reasonable prospects for its economic extraction, as proposed? Why or why not?	Rio Tinto recommends that the definition be modified to align to CRIRSCO by insertion of the qualifier '*eventual*': i.e. 'reasonable prospects for *eventual* economic extraction' The time element is important as the Mineral Resources timeframe is necessarily longer than for Mineral Reserves, given the need to complete studies, financing, and development. The industry average for a word class copper project from discovery to first metal is approximately 15 years.
51	Should the definition of mineral resource include mineralization, including dumps and tailings, as proposed? Should the definition of mineral resource also include geothermal fields and mineral brines, as proposed? Why or why not? Is there any other material that should be explicitly included in the definition of mineral resource?	Rio Tinto agrees that the Mineral Resource definition should include dumps and tailings, and notes that some mining and processing operations are entirely based on the recovery of these mineralised stockpiles. Geothermal fields are more akin to oil and gas reservoir assessments and should be reported using similar concepts. Mineral brines could be reported, but would need specific guidance to be developed.
52	Should the definition of mineral resource exclude oil and gas resources as defined in Regulation S-X, gases (e.g., helium and carbon dioxide), and water, as proposed? Why or why not? Is there any other material that should be explicitly excluded from the definition of mineral resource?	Oil, gas, and condensates should be reported under separate guidance, as per current SEC and CRIRSCO international approaches, as they are not solid minerals.
53	Should the definition of mineral resource include the requirement that a qualified person estimate or interpret the location, quantity, grade or quality continuity, and other geological characteristics of the mineral resource from specific geological evidence and knowledge, including sampling, as proposed? Why or why not? Are there other geological characteristics that we should explicitly require a qualified person to estimate or interpret when determining the existence of mineral resources?	The Mineral Resource definition proposed appears aligned to the CRIRSCO definition, and is supported by Rio Tinto. Reporting of a Mineral Resource requires in all cases, evaluation and sign-off by a qualified person, as defined by the rules. The qualified person should also evaluate and disclose any material aspects of the mineralisation or deposit type in determining the Mineral Resource, whether or not the deposit specific criteria are directly listed in the guidance.

54	Should we require a registrant to classify its mineral resources into inferred, indicated and measured mineral resources, as proposed? Why or why not? If not, what classifications would be preferable and why?	Rio Tinto supports that all reported resources must be classified into Inferred, Indicated or Measured categories as noted. Use of alternate names, derivatives or definitions should be specifically forbidden under the rules, as in CRIRSCO.
55	Should we define "inferred mineral resource" as proposed? Why or why not? Should we require the disclosure of inferred mineral resources although quantity and grade or quality with respect to those mineral resources can be estimated only on the basis of limited geological evidence and sampling, as proposed? Should we require a qualified person to describe the level of risk associated with an inferred mineral resource based on the minimum percentage that he or she estimates would convert to indicated or measured mineral resources with further exploration, as proposed? Should we permit rather than require a registrant to disclose inferred mineral resources because of the high level of geologic uncertainty associated with that class of mineral resource? Should we prohibit the disclosure of inferred mineral resources for that reason?	The definition is consistent with international codes and is accepted by Rio Tinto. Inferred Resources should be able to be disclosed in all cases. The decision to report an initial Inferred Resource or not requires the QP to evaluate the deposit and decide whether the Inferred code definition can be met based on the available information. If the uncertainty is too high, the Mineral Resource should not be reported until more data is available. Risk should be disclosed and discussed by the QP, though percent conversion estimates themselves infer a precision of outcome that is unlikely to be supportable, particularly for early stage evaluations. The Mineral Resource must meet the primary definition of reasonable prospects of eventual economic extraction to qualify, and the basis for this must be explicitly discussed (CRIRSCO, e.g. JORC Clause 20).
56	Should we prohibit the use of inferred mineral resources to make a determination about the economic viability of extraction, and preclude the conversion of an inferred mineral resource into a mineral reserve, as proposed? Would these proposed prohibitions be sufficient to mitigate the added uncertainty that could result from the requirement to disclose inferred mineral resources? Are there circumstances that would justify a qualified person's use of inferred mineral resources to make a determination about the economic viability of extraction, or that would allow the conversion of an inferred mineral resource into a mineral reserve? Should we permit the use of inferred mineral resources to make a determination about the economic viability of extraction as long as the qualified person and registrant disclose the high level of risk associated with such mineral resources? If so, what would be the potential effects on registrants and investors?	Rio Tinto supports alignment to the CRIRSCO definitions as proposed in the rules, and therefore that Inferred Mineral Resources cannot be converted to Mineral Reserves or to be used to directly support the economic viability of an Ore Reserve. Internal corporate use of Inferred Resources in a scoping study or sensitivity analysis is allowed, but conversion to a Mineral Reserve in either a Pre-feasibility or Feasibility study is forbidden under all CRIRSCO codes. As per JORC code clause 38, a scoping study (or PEA under NI 43-101) cannot be used to assure economic development.
57	Should the definition of "inferred mineral resource" provide that such mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, as proposed? Should we require a registrant, when disclosing inferred resources, to provide a legend or cautionary statement about the geological uncertainty associated with inferred resources? If so, what should such legend or cautionary statement say and where in the SEC filing should it be disclosed?	Rio Tinto would support adopting the CRIRSCO definition for Inferred Resources without modification and without an additional cautionary statement. The uncertainty of Inferred Resources is captured in the definition. The restrictions on use of Inferred Resources and the classification definition itself adequately convey the uncertainty.
58	Should we define "indicated mineral resource," as proposed? In particular, should the definition depend on a qualified person's ability to estimate quantity and	Rio Tinto would support adopting the CRIRSCO definition for Indicated Resources without modification. Adequacy of evidence and confidence to support mine planning is aligned to the CRIRSCO definition.

	grade or quality using adequate geological evidence and sampling, as proposed? Should the definition of "adequate geologic evidence" be based on a qualified person's ability to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit, as proposed? Should we require a qualified person to describe the level of risk associated with indicated mineral resources based on the confidence limits of relative accuracy at a particular confidence level for production estimates for one-year periods, as proposed? Should we, instead, allow the qualified person to provide a qualitative discussion of the uncertainties in place of confidence limits if he or she so chooses? Why or why not?	Risk should be disclosed and discussed by the QP, including qualitative discussion of confidence limits, however hard limits cannot be practically mandated. Linking confidence limits to production periods can be valuable disclosure if the production rates are known, but cannot be applied to Indicated Resources in pre-development projects where the mining or processing rates may not yet be evaluated or decided upon.
59	Should the definition of "indicated mineral resource" include that such mineral resource has a lower level of confidence than what applies to a measured mineral resource and may only be converted to a probable mineral reserve, as proposed?	Rio Tinto supports the proposed definition as it aligns with CRIRSCO.
60	Should we define "measured mineral resource," as proposed? In particular, should the definition depend on a qualified person's ability to estimate quantity and grade or quality on the basis of conclusive geological evidence? Should we base the definition of "conclusive geologic evidence" on a qualified person's ability to apply modifying factors in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit, as proposed? Should we require a qualified person to describe the level of risk associated with measured mineral resources based on the confidence limits of relative accuracy at a particular confidence level for production estimates for periods of less than one year, as proposed? Should we, instead, allow the qualified person to provide a qualitative discussion of the uncertainties in place of confidence limits if he or she so chooses? Why or why not? Are there particular challenges to complying with the proposed requirement to disclose numerical estimates of the level of confidence for each class of mineral resource?	Rio Tinto would support alignment of the definition to the CRIRSCO version, and has issue with the modified wording proposed. "*Conclusive geological evidence*" is a terminology inconsistent with the CRIRSCO definition and does not equate with "within close limits or 'no reasonable doubt' directly. The word *conclusive* implies a higher level of proof, i.e. beyond reasonableness and is outside of the relevant scientific norms. Rio Tinto feels the introduction of new terminology, even if the intent is aligned, could lead to confusion with both practitioners and investors. Risk should be disclosed and discussed by the QP, including qualitative discussion of confidence limits, however this cannot be mandated. Linking confidence limits to production periods can be valuable disclosure if the production rates are known, but cannot be applied to Measured Resources in pre-development projects where the mining or processing rates may not yet be evaluated.
61	Should the definition of "measured mineral resource" include that such mineral resource has a higher level of confidence than what applies to either an indicated mineral resource or an inferred mineral resource and may be converted to a proven mineral reserve or to a probable mineral reserve, as proposed?	Rio Tinto supports this proposal, as it is aligned to the CRIRSCO template definition.
62	Should we require the disclosure of numerical estimates of the level of confidence associated with each class of mineral resource, as proposed? Why or why not? Should we instead follow the practice in the CRIRSCO- based codes and require only the disclosure of all material assumptions and the factors considered in classifying mineral	As noted above, while discussion of qualitative or, if suitable quantitative confidence levels should be encouraged, reporting of numerical estimates should not be mandated. During early stage studies, many different mining and processing rates and cut-off options are evaluated. A confidence rate linked to a single anticipated production period in a pre-production period would change if the registrant considered a different production rate.

	resources? Why or why not?	For Production stage entities, this would be a significant burden. A set of criteria distinct from the CRIRSCO approach is likely to lead to inconsistent disclosure between markets and potential confusion for investors.
63	Should we require that a registrant's disclosure of mineral resources be based upon a qualified person's initial assessment, which supports the determination of mineral resources, as proposed? Why or why not? Is there another form of analysis or means of disclosure that would be more appropriate for the determination and disclosure of mineral resources? Would disclosure of the material risks associated with mineral resource determination be an adequate substitute for the initial assessment requirement?	Not all Mineral Resources that are published relate to new discovery / pre-production projects. The proposal seems to be focused solely on an initial Resource disclosure, and appears to introduce new terminology in the form of an 'Initial assessment '. What is the case for publication of Mineral Resources co-located with existing mining operations? An initial assessment normally would outline mining and processing options. In an existing operation these physical assets already exist, so Rio Tinto would submit that such assessments should not be required. Under JORC (2012), an initial Resource or material update (material change) requires a disclosure of technical inputs, work completed and modifying factors through (mandated) commentary based on an 'if not, why not' approach using the JORC Table 1 criteria, sections 1-3. In this way the QP must comment explicitly on a range of criteria. Rio Tinto already generates such disclosure for its UK and Australian listings for initial Resource releases, and would request that the SEC considers that such disclosure meets the intent and requirement of the proposed initial assessment. In a similar way, other registrants reporting under CRIRSCO codes in their home listing could achieve improved alignment of disclosure and cost/effort savings should the SEC accept both NI 43-101 and CRIRSCO Template Table 1 reporting standards as being the technical equivalent of SEC specific disclosure.
64	If we require an initial assessment to support the determination of mineral resources, should we define "initial assessment," as proposed, to require the consideration of applicable modifying factors and relevant operational factors for the purpose of determining (at the resource evaluation stage) whether there are reasonable prospects for economic extraction? Should we instead only require consideration of modifying and operational factors at the reserve determination stage?	Qualitative assessment of the modifying factors is embedded in the CRIRSCO template, and Rio Tinto would request that CRIRSCO complying Table 1 disclosures be accepted by the SEC as a qualifying disclosure.
65	Should we require an initial assessment to include cut- off grade estimation, as proposed? Why or why not?	Under CRIRSCO Table 1, the basis of cut-off assumptions must be disclosed within the initial Resource disclosure.
66	Should we require a qualified person to base cut-off grade estimation on assumed unit costs for surface or underground operations, as proposed? Is it appropriate to allow the qualified person to make an assumption about unit costs, as proposed, or should we require a more detailed estimate of unit costs at the resource determination stage? Is it appropriate to require the qualified person to disclose whether the unit cost estimates are for surface or underground operations, as proposed?	Under CRIRSCO Table 1, the basis of cut-off assumptions must be disclosed within the initial Resource disclosure by the QP. The level of calculation versus estimation is dependent on the Resource classification and study stage. Early Inferred Resource reporting will more heavily rely on reasonable industry cost, recovery, and price inputs assumed from similar commodity and operating scales. Advanced studies with higher category Resources will more likely have directly developed project cost models. CRIRSCO Table 1 also requires discussion of the proposed mining methodology.
67	Should we also require a qualified person to base cut- off grade estimation on estimated mineral prices, as proposed? In this regard, should we require the qualified person to use a commodity price that is no higher than the average spot price during the 24-month period prior to the end of the last fiscal year, determined as an unweighted arithmetic average of the daily closing price for each trading day within such period, unless prices are defined by contractual arrangements, as proposed? Does a ceiling model based on historical prices	Cut-off grade estimation requires many inputs, of which metal price is but one. Disclosing the combined basis for the cut-off assumption is the CRIRSCO approach, rather than defining a fixed price as a mandated input. Rio Tinto strongly opposes the mandating of 24-month price points for Mineral Resource estimation. There are a number of fundamental issues with this approach: 1. This is incompatible with the CRIRSCO approach, in which the registrant management and QP select commodity price and financial inputs aligned to its likely development schedule and forward estimates of market conditions. Mining registrants avoid the use of

	best meet the goals of transparency, cost efficiency and comparability? Why or why not? Is there another model that would better meet these goals? If another price model better meets these goals, what should be the basis of estimated mineral prices for purposes of the initial assessment? Whatever price model we adopt, should it be used to determine the commodity price itself? Or should it be used, as proposed, to determine the ceiling of the commodity prices?	both cycle high and low prices for resource inputs, particularly given the timeframes involved for studies and development. The methodology to determine the price input should be disclosed by the registrant. 2. A registrant reporting under CRIRSCO in one market and also in the US under such a rule would potentially present fundamentally different Resource tonnages and grade, both of which would have the same category names and the same QP signing off. This would confuse the market, and work against the stated goals of harmonisation across markets. 3. As noted above, the anticipated timeframe for identified Resources to move forward into development can be significant. The mandating of near term price forecasts would mimic the price cycle with little buffering. A Resource could move on and off the reporting list (or shrink and grow significantly) a number of times prior to development. This would cause inconsistent disclosure between SEC filings and CRIRSCO market reporting, and investor uncertainty.. 4. Adoption of such a rule would require full recalculation of all Rio Tinto listed Resources to comply with this mandated input, effectively duplicating the effort and create a significant reporting burden for the registrant. 5. Many commodities do not have trading prices, so this volatility would impact some commodities only as long term off-take contracts tend to be less volatile. 6. Such trailing 24 month prices would overestimate Reserves and Resources in declining price cycles, while underestimate Reserves and Resources in improving cycles. Furthermore, it will result in investor irrational exuberance in short periods of high prices and irrational investor dissatisfaction in short periods of low prices. 7. For those producers that have hedged production, the price realized from the hedging may be quite different than the trailing 24 month average and may be highly material particularly in cases of decreasing metals pricing where favorable hedges have been obtained. It would be helpful to clarify whether the inclusion of hedges would be permitted under the new rules. 8. The 24 month cycle may also be highly at variance with the production decisions and long term views in the Feasibility Study on which the production decision or expansion was based.
68	Is the proposed 24-month period the most appropriate period for the estimated price requirement? Would a 12, 18, 30, or 36-month period, or some other duration, be more appropriate? Should the 24-month period, or other period be fixed and apply to all registrants, or should the period vary depending upon the type of commodity being mined and other factors?	Rio Tinto strongly opposes the use of 24 month ceiling prices as noted in 67. Registrants should be allowed, as under CRIRSCO approaches, to use forward looking prices based upon industry analysis and in alignment to the development plans of the business. Fixed price inputs would create a situation where the US version of Mineral Resources for Rio Tinto could differ substantially from year to year from the CRIRSCO version reported for the same projects and operations. In addition, for projects undergoing the NEPA process or other permitting, using the 24 month period particularly during periods of very low prices and long lead projects, would tend to cause significant legal and technical difficulty if those projects were shown on the registrant's SEC reports as currently uneconomic based on those 24 month prices, even if the long term outlook is favourable. That could result in permit denials or undue restrictions, as well as further project delays, in the regulatory process. Also, for financial assurances, including bonding, the risk factors from those published reports that relied on short term prices for long cycle commodities may result in much higher, or much lower, risk attributes from the bonding agencies, causing both excessive costs or risks as the bonding entities would be factoring in the published SEC reports from the proponent. Finally, due to the peculiarities of the US Mining Law of 1872, those prices may unnecessarily give rise to economic challenges to the validity of unpatented mining claims based on the short term price depression.

69	Should we require, as proposed, the same ceiling price for mineral resource and reserve estimation? If not, how should the prices used for mineral resource and reserve estimation differ? Would such criteria meet the goals of transparency, cost efficiency and comparability?	Many mining operators use a higher price point for reporting of Resources than Reserves, to account for both longer time frames and to ensure that more commodity cycle flexible cut-offs can be evaluated in Resource options studies. This is established industry practice. If different price points are used, this should be disclosed, along with a description of the methodology used, as per CRIRSCO rules.
70	Should we require that for purposes of the initial assessment a qualified person must provide at least a qualitative assessment of all relevant modifying factors to establish economic potential and justify why he or she believes that all issues can be resolved with further exploration and analysis, as proposed? Are the modifying factors provided as examples in the proposed instruction and table the most appropriate factors to be included? Are there other factors that should be specified in the instruction and table in lieu of or in addition to the mentioned factors? Would presentation of the modifying factors in a table benefit investors, registrants and qualified persons?	Reporting of Mineral Resources under the sign-off of a QP and following CRIRSCO guidance is appropriate. Rio Tinto reports initial Mineral Resource assessments under JORC (2012) Table 1 criteria (sections 1-3) using an 'if not why not' comment approach for its UK and Australian listings. This approach provides balanced commentary by ensuring all key Resource elements and preliminary modifying factors are commented upon by the QP. Rio Tinto is required to report under this approach and would submit that the CRIRSCO approach be accepted by the SEC for support of the initial assessment as proposed. The modifying factors table provided is a different format to the CRIRSCO disclosure standards, and fits part way between Resource disclosure (table 1 sections 1-3) and Scoping study disclosure. Rio Tinto feels the introduction of a new format not previously seen in CRIRSCO Resource reporting could confuse investors, and would provide an additional reporting burden.
71	Should we permit the qualified person to make assumptions about the modifying factors set forth in the proposed table at the resource determination stage, as proposed? Why or why not? Are there other assumptions that we should specify in lieu of or in addition to those already mentioned in the proposed table?	Rio Tinto supports that the Qualified Person should be permitted to make assumptions as proposed but these should be reported under an existing CRIRSCO Template Table 1 format rather than another format created for this purpose. Additionally, that the form of the CRIRSCO report submitted should be acceptable as per the home listing of the registrant (JORC 2012 for Rio Tinto), so as to improve alignment between markets.
72	Should we permit a qualified person to include cash flow analysis in an initial assessment to demonstrate economic potential, as proposed? Why or why not? If we should permit cash flow analysis in an initial assessment, should we require that operating and capital cost estimates in the analysis have an accuracy level of at least ±50% and a contingency level of ≤25%, as proposed? If not, what should the accuracy and contingency levels be? Should we require the qualified person to state the accuracy and contingency levels in the initial assessment?	Reporting of cash flow analysis at Mineral Resources stage is subject to severe restrictions under various CRIRSCO codes and market listing rules, given the degrees of uncertainty involved. A mineral Resource is not a Mineral Reserve, and the degree to which the modifying factors have been defined and evaluated covers a large range depending upon the Resource category mix and the degree to which a scoping study has been completed. Economic viability is only demonstrated at Pre-Feasibility study level, supported by Indicated and Measured Resources. Allowing or encouraging cash flow to be reported at Scoping Study could imply that economic viability has been achieved which can mislead investors. Rio Tinto recommends strong cautionary language if the SEC is to proceed – JORC(2012) clause 38 example: *'The Scoping Study referred to in this report is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.'* A Resource needs reasonable prospects of economic extraction, not demonstrated viability and this distinction must be maintained.
73	If we permit cash flow analysis in the initial assessment, should we prohibit the qualified person from using inferred mineral resources in the cash flow analysis, as proposed? Why or why not? Would there be disadvantages to registrants or investors if the use of inferred mineral resources in	Cash flow analysis based solely on Inferred Resources only are high risk given the levels resource uncertainty and by extension early views on potential modifying factors. Cash flows based on a mix of Measured, Indicated and Inferred Resources present a different risk profile. Rio Tinto recommends that the proportions of Resource categories be explicitly disclosed and that severe cautionary

	an initial assessment's cash flow analysis is prohibited? Would there be advantages to prohibiting the use of inferred resources in an initial assessment's cash flow analysis in the initial assessment?	language be required, as per CRIRSCO and other market exchange requirements when reporting Scoping Study elements.
74	Should we prohibit the use of an initial assessment to support a determination of mineral reserves, as proposed? Why or why not?	Yes. Mineral Reserves should only be reported if supported by a Pre-Feasibility Study, in order to maintain alignment with CRIRSCO.
75	Are we correct in thinking that use of Circulars 831 and 891 to classify mineral resources would not be appropriate under the proposed rules? Why or why not?	Rio Tinto agrees that the use of Circulars 831 and 891 to classify Mineral Resource would not be appropriate, given the poor alignment with CRIRSCO (specifically the lack of economic criteria) and the potential to cause inconsistent disclosure.
76	Should we establish a framework for mineral reserves determination and disclosure, as proposed? Why or why not? Is there another framework that would be preferable to the proposed framework? If so, what would be the advantages and disadvantages of the alternative framework?	Rio Tinto recommends that the framework for disclosure of mineral Reserves be established so that it aligns fully with the CRIRSCO code definitions and methodology. Variations from CRIRSCO definitions risk creation of inconsistent disclosure between markets and additional burden for foreign registrants reporting under CRIRSCO in their home markets.
77	Should we define "mineral reserve," as proposed? Are there conditions that we should include in the definition of mineral reserves instead of, or in addition to, those proposed to be included in the definition? Are there any conditions that we should exclude from the definition of mineral reserves? For example, should we modify the condition that mineral reserves be based on a pre-feasibility or feasibility study to only permit a feasibility study? Should we exclude in its entirety the condition that mineral reserves be based on a feasibility or pre-feasibility study? Are there terms that we should define differently? For example, should we define a mineral reserve as an estimate of tonnage and grade or quality that includes diluting materials and allowances for losses, instead of a net estimate, as proposed? Why or why not?	Mineral Reserves, based on appropriate application of modifying factors to Measured and or Indicated Resources should require a minimum Pre-Feasibility study support and QP sign-off as per CRIRSCO definitions. This requires the establishment of a technically and economically viable mine plan. For operating mines, material updates to Mineral Reserves do not require a new Feasibility Study, but a technical summary covering the same modifying factors should be provided in support (as per CRIRSCO). Changing terms or introducing new definitions to CRIRSCO terminology is not supported, as this will lead to ambiguity and inconsistent data disclosure to r investors between the US and international market disclosures for multi market registrants such as Rio Tinto. Rio Tinto strongly rejects the 'net of allowances' concept. This is not aligned to international mining practice or the definitions of Mineral Reserves under CRIRSCO, where Reserves are estimated with inclusion of losses and dilution, in order to link with the economic supporting case. Mine schedules are developed based on Mineral Reserves (including losses and dilution), as are the cash flow models supporting economic viability. In block cave mines the entire Mineral Reserve process and schedule is built around accounting for dilution and mixing in the caving process. Reporting an in-situ Reserve that has no connection to economic testing is both confusing, and likely misleading. The plant / mill feed reference point appears to be the same reference point as Ore / Mineral Reserve under CRIRSCO i.e. in-situ Reserves above cut-off accounting for dilution and ore loss. However it is a new terminology not aligned to industry use and again, could contribute to confusion and ambiguity. Saleable product basis is regularly disclosed in industry, in addition to the Mineral Reserve, and Rio Tinto additionally reports marketable tonnage across a range of commodities (coal and industrials), so accepts this additional reference point when commodity applicable. Under CRIRSCO, Saleable product can only be reported additional to, rather than instead of Mineral Reserves
78	Should we explicitly include a life of mine plan disclosure requirement in the technical studies required to support a determination of mineral reserves, as proposed? Why or why not?	The Pre-Feasibility Study or Feasibility Study requires the establishment of a technically and economically viable mine plan, in order to support a Mineral Reserve. Rio Tinto would support the alignment of the specific disclosure of the modifying factors to the CRIRSCO code Table 1, sections 1-4 as an established and understood approach. In order not to create a significant reporting burden, the technical summary should only be triggered for initial or materially upgraded Mineral Reserves for Production stage registrants.

79	Should we require the use of a discounted cash flow analysis or other similar analysis to establish the economic viability of a mineral reserve's extraction, as proposed? Why or why not? If so, should we require the use of a price that is no higher than a trailing 24 month average spot price in the discounted cash flow analysis, except in cases where sales prices are determined by contractual agreements, as proposed? Is there some other period (e.g., 12 or 36 months) or measure that should determine the price used in the discounted cash flow analysis?	Rio Tinto support the use of a discounted cash flow but suggest some flexibility to allow alternate financial modelling approaches. An outline of the methodology applied and outcomes should be disclosed. As discussed in the Mineral Resources commentary, there are a number of fundamental issues with using a near term rear facing commodity price for Mineral Reserve calculations 1. This is incompatible with the CRIRSCO approach, in which the registrant management and QP select commodity price and other financial inputs aligned to its mine schedule and forward estimates of market conditions. Mining registrants avoid the use of both cycle high and low prices for mineral reserves inputs, particularly given the timeframes involved for mine development through to closure. The methodology to determine the price input should be disclosed by the registrant as required under CRIRSCO. 2. A registrant reporting under CRIRSCO in one market and also in the US under such a rule would potentially present fundamentally different Mineral Reserves tonnages and grade, both of which would have the same category names and the same QP signing off. This would confuse the market, and work against the stated goals of harmonisation across markets. 3. As noted above, the life of mine assets can be significant. The mandating of near term price forecasts would mimic the price cycle with little buffering. A published Reserve could shrink and grow significantly a number of times prior to completion of mining activities, all the time while following the same overall mine plan. Mine designs do not change with every short term market shift. 4. This would cause uncertainty between investment markets and create a significant recalculation and reporting burden, repeated across every listed Reserve, for the registrant. 5. The annual restatement of Mineral Reserves by the registrant and QP provides already provides market assurance that the Reserve viability has been assessed and appropriately declared. 6. For those producers that have hedged production, the price realized from the hedging may be quite different than the trailing 24 month average and may be highly material particularly in cases of decreasing metals pricing where favourable hedges have been obtained. It would be helpful to clarify whether the inclusion of hedges would be permitted under the new rules 7. Many commodities do not have trading prices, so this volatility would impact some commodities only as long term off-take contracts tend to be less volatile. 8. See also No. 68 above.
80	Should we allow registrants to use an alternate price in addition to a price that is no higher than a trailing 24 month average spot price, as long as they disclose the alternate price and their justification? Alternatively, should we require every registrant to use a fixed 24 month trailing average price with the option to use an alternate price(s) that is reasonably achieved? Are there other pricing methods (e.g., management's long term view or using spot, forward or futures prices at the end of the last fiscal year to determine the ceiling price allowed) that we should require or permit registrants to use in discounted cash flow analysis? Would such pricing methods be transparent, easy for registrants to apply and investors to understand, and to the extent practicable, provide some degree of comparability	The registrant should be able to use its own research to support pricing policy, as applied in CRIRSCO reporting. Commercial in confidence restrictions may be required in terms of disclosure of contracted pricing points. Given the scale of Rio Tinto operations and global supply percentage, publication of pricing could also raise issues of anti-trust price signalling in key commodities. Where the specific price cannot be disclosed for the above reasons, a description of methodology and price derivation should be applied, as per CRIRSCO disclosure approaches. Under current SEC IG 7 approaches, with a 3 year trailing price, Rio Tinto applies the lower of either the 3 year trailing or long term price forecast. This is a significant burden to our QPs in each of our operating units. In some operations in commodities experiencing low price cycles, alternate versions of the Mineral Reserve are developed and presented to align with SEC guidance, even though these are not the basis for actual mine operations or forward planning. This has already created confusion for Rio Tinto shareholders,

		as the apparent Mineral Reserve and life of asset do not align between CRIRSCO and IG7 versions in these cases. Rio Tinto would also submit that in periods of high prices it does not pursue the high price points allowable under the SEC guidance, even though the SEC guidance would allow so. Rio Tinto believes using recent price peaks for long term life of mine estimates is as equally misleading as using price point based on low cycles.
81	Should we define the terms "probable mineral reserve" and "proven mineral resource," as proposed? Why or why not? If not, how should we modify these definitions?	In all CRIRSCO reporting globally, 'Proven' is reported as 'Proved' reserve. Rio Tinto suggests alignment to the CRIRSCO standard and definitions.
82	Should we define "modifying factors," as proposed? Are there any factors that we should include in the definition of modifying factors instead of or in addition to those already included in the definition? Are there any factors that we should exclude from the definition?	Modifying factors should be aligned to CRIRSCO definitions. Given the range of deposit types and mining approaches the list is not restrictive and the qualified person must also disclose any other factor used that is material to the Mineral Reserve case in question.
83	Should we adopt the above discussed instructions, as proposed? Why or why not?	Rio Tinto, as noted above requests alignment to the CRIRSCO definitions and approaches, in order that international harmonisation and alignment of reported Mineral Reserves can occur. The sum impact of applying the proposed 24 month trailing pricing (high volatility), and definition changes (including in-situ Reserves) would be a significant calculation and reporting burden, and could result in materially different disclosure between SEC submissions and those to market in the UK and Australia where it is required to report under JORC (CRIRSCO). Different reporting for the same project in different markets, all using the same terminology and with the same QP signing off will confuse investors and markets.
84	Should we define "preliminary feasibility study" and "feasibility study," as proposed? Are there any terms and conditions that we should include instead of or in addition to those included in the proposed definitions? Are there any terms or conditions under each definition that we should exclude?	Rio Tinto supports the proposed definitions of Pre-Feasibility and Feasibility studies, because they are consistent with the CRIRSCO Template.
85	Should we permit the use of either a pre-feasibility study or a feasibility study to support the determination and disclosure of mineral reserves, as proposed? Why or why not?	Yes, as per global industry practice and CRIRSCO requirements, Mineral Reserves should be allowed to be published from Pre-Feasibility onwards. Completion of a successful Pre-Feasibility Study is the point at which the mining company typically commits to the development of a project. The Feasibility Study represents the detailed engineering and final design, the viability threshold having already being established at Pre-Feasibility.
86	Should we require qualified persons to use a feasibility study in situations where the risk is high, as proposed? Why or why not? Are there other conditions, in addition to or in lieu of high risk situations, where we should require a feasibility study in support of mineral reserve disclosure?	The determination of risk is for the registrant and the qualified person to assess prior to Mineral Reserve classification and reporting. If the first Pre-Feasibility support case is inconclusive, it is common practice for the Mineral Reserve not to be published until additional studies are completed and the development case is clear. The QP is required to discuss and disclose relevant risks under CRIRSCO reporting guidance assessment of 'high risk'.
87	Should we adopt the proposed instructions about the use of a pre-feasibility study to support the determination and disclosure of mineral reserves? Are there any instructions that we should provide instead of or in addition to the proposed instructions for such use of a pre-feasibility study? Are there any instructions that we should exclude? Would the proposed instructions mitigate the risk of less certain disclosure that could result from the use of a pre-feasibility study to support the determination and disclosure of mineral reserves? If not, why not?	A Pre-Feasibility Study is required to address all of the modifying factors as per the instructions. Rio Tinto would support that the SEC accept the use of CRIRSCO Table 1, section 1-4 guidance as criteria which require commentary for disclosure of a Mineral Reserve. Assessment of risk is intrinsic to completion of a Pre-Feasibility study, and material risks must be appropriately evaluated by the QP and disclosed by the registrant. This disclosure protects investors. Disallowing publication of the Pre-Feasibility Mineral Reserve to US markets, while this information is published in other jurisdictions under CRIRSCO would confuse investors and lead to an uneven market across jurisdictions.

88	Should we adopt the proposed instructions for the use of a feasibility study to support the determination and disclosure of mineral reserves? Are there any instructions that we should provide instead of or in addition to the proposed instructions for such use of a feasibility study? Are there any instructions that we should exclude?	As above, Pre-Feasibility with appropriate disclosure should be the threshold for reporting of Mineral Reserves.
89	As part of the instructions for pre-feasibility and feasibility studies, should we define preliminary and final market studies as proposed?	Disclosure of market assessment is required under CRIRSCO Table 1 section 4. Rio Tinto supports alignment to this requirement.
90	Should we require summary disclosure, as proposed, for all registrants with material mining operations? Why or why not? Should such summary disclosure require maps showing the locations of all mining properties, a presentation of the proposed information about the 20 properties with the largest asset values, and a summary of all mineral resources and reserves at the end of the most recently completed fiscal year, as proposed?	Summary disclosure, aligned to CRIRSCO Table 1 should be required for material properties upon release of initial Mineral Reserves, and subsequently for material updates for those properties. In this way, as new material information is available, the market is informed. For Production stage registrants, Resource and Reserve tabulations, by classification for all material properties should be reported annually, signed off by qualified persons and with year on year changes transparently disclosed. Materiality should be determined by the registrant, and not be limited to the 20 largest properties, given that asset values will fluctuate with commodity price cycles leading to an annual reshuffling of the list.
91	Should we permit registrants to treat multiple mines with interrelated mining operations as one mining property, as proposed? Should we instead require registrants to treat such mines as separate properties? Why or why not?	Rio Tinto submits that registrants should be permitted to treat multiple mines with inter-related mining and process operations as one mining property.
92	Should we exclude registrants with only one mining property from the summary disclosure requirements, as proposed? Why or why not? Alternatively, should we use a different threshold than the proposed “only one” threshold for excluding a registrant from the summary disclosure requirements? If so, what threshold should we use and why would this threshold be more appropriate?	Single operation registrants should be subject to similar disclosure requirement as multi property registrants. If you have only one property it is clearly material.
93	Regarding the proposed summary disclosure requirement for the 20 largest properties, should we require other information, in addition to or in lieu of the proposed items? Why or why not? For example, should we require the registrant to disclose the asset value of each property included in its summary disclosure? Should we revise the proposed form and content of Table 2? If so, how should we revise the table’s form or content?	To the extent that the level of description is aligned to the current Rio Tinto Form 20-F filings, Rio Tinto would not object. The asset value should not be required for each property as this would be onerous and is commercially sensitive information Rio Tinto provides the technical information at this level in its CRIRSCO based report and a Reserves only version in its Form 20-F, though the proposed tabulation format is different. The metals and mine production tables (by facility) for the previous 3 years are provided separately to Resources and Reserves. By convention, Resource and Reserve tables are separated and not combined into a single table 2 as suggested in the comment paper. This is due to the complexity of reporting tonnes and grades/qualities, for all classification categories plus sub-totals, across multiple commodities, along with comparative tonnages for the previous year, process recoveries and percentage ownership. While a single table format is likely unworkable, Rio Tinto has no objection to providing the level of detail requested.
94	Should the presentation of information about the mining properties with the largest asset values include the 20 largest properties, as proposed? Should this number be higher or lower? If so, what number is appropriate? Why? Should the summary disclosure include only those properties that represent 5% or more in asset value? Should we permit the summary disclosure to omit any property that represents 1% or less in asset value?	Materiality should be determined by the registrant, and not be limited to the 20 largest properties, given that asset values will fluctuate with commodity price cycles. Restriction to the 20 largest would create high volatility with key assets moving in and out of the list through time, and growth assets having limited visibility. Reporting the top twenty in order each year would provide little comparability

	Alternatively, should we require the specified information based on some criteria (e.g. revenues) other than asset value?	
95	Should we require summary disclosure to include information on mineral resources and reserves, as proposed? Why or why not? If mineral resources and reserves are required in summary disclosure, should we require their disclosure by class of mineral reserves (probable and proven) and resources (inferred, indicated and measured), together with total mineral reserves and total measured and indicated mineral resources, as proposed? Should we require the summary disclosure by commodity and geographic area or property containing 10% or more of mineral reserves or sum of measured and indicated mineral resources, as proposed? Why or why not? In particular, is the proposed instruction to Table 3 regarding the scope of geographic area to be disclosed sufficiently clear, and if not, how should it be clarified? Should we require disclosure of mineral reserves and resources by some other attribute (e.g., segments), in addition to or in lieu of commodity and geographic area? If so, which attributes should we use and why? Should we revise the proposed form and content of Table 3? If so, how should we revise the table's form or content?	Summary disclosure of Resources and Reserves by each classification category, should be required as this will allow full alignment between Rio Tinto disclosures under CRIRSCO in the UK and Australia, and the SEC filings. Total Reserves are appropriate. Total Resources should include Measured, Indicated and Inferred to align with CRIRSCO convention. Each Resource and Reserve country, location, and project name should be disclosed in the table. Rio Tinto provides summary totals by commodity rather than location, as this has more meaning to investors. Properties that produce more than one commodity appear in multiple sections. Rio Tinto objects to instruction 5, that is to report both Resources and Reserves as saleable product only, as this is in conflict with CRIRSCO approaches, which requires saleable product, if reported, to be in conjunction with, rather than instead of Mineral Reserves. Rio Tinto reports Reserves of Marketable Product in addition to Mineral Reserves for industrial minerals and coal. Metals are reported in-situ and also as recoverable metal. This provides maximum clarity for investors. Reporting Mineral Resources as recoverable product is inappropriate, and this could be misleading. For Mineral Resources the modifying factors are still preliminary, and mining and processing routes and performance are yet to be established. Reporting Resources as saleable product is premature for this reason.
96	Should we require the disclosure in Tables 2 and 3 to be made available in the eXtensible Business Reporting Language (XBRL) format? Why or why not?	Rio Tinto submits that providing the data in XBRL format would be of limited use to investors. Being able to extract data elements out of context is high risk and likely of limited use in a comparative type analysis.
97	If we require the disclosure in Tables 2 and 3 to be made available in XBRL, are the current requirements for the format and elements of the tables suitable for tagging? If not, how should they be revised? In particular, are the proposed instructions for Tables 2 and 3 sufficiently specific to make the data reported in the tables suitable for direct comparative analysis? If not, how should the instructions be revised to increase the usefulness of having the data made available in XBRL, including the comparability and quality of XBRL data?	As noted in 93 – 95, the table formats as proposed are not viable for a complex filing such as that which Rio Tinto would likely provide – For example , in 2015 Rio Tinto reported under CRIRSCO 1. 12 Reserve commodities, 63 Reserve project line items 2. 13 Resource commodities, 101 Resource line items 3. The Production, Reserves, Resources and Operations description section of the annual report covering the information types requested in tables 2 and 3, QP details and footnotes ran to 24 pages.
98	If we require Tables 2 and 3 to be made available in XBRL, is there a particular existing taxonomy that should be used? Alternatively, what features should a suitable taxonomy have in this case?	Refer 97. We believe the nominated table design is restrictive and unsuitable for large Production stage registrants in a multi-commodity context. The tables also do not contain the facility for direct previous year comparison of tonnages and grades.
99	Should we require disclosure on individually material properties, as proposed? Why or why not? Should such disclosure require a description of the property, a history of previous operations, a description of the condition and status of the property, a description of any significant encumbrances to the property, a summary of the exploration activity for the most recently completed fiscal year, a summary of material exploration results for the most recently completed fiscal year, and a summary of all mineral resources and reserves, if mineral resources or reserves have been determined, as proposed?	Disclosure of background information on material properties is supported by Rio Tinto, and has historically been supplied to the SEC, and is aligned to CRIRSCO requirements. Commentary on mines and production facilities is provided, as a separate table under the headings of project, location, infrastructure access, title/lease form and timeframe, project history, mine type and power source. The granularity of the suggested reports is problematic for a large registrant and could be burdensome. Exploration results for Production stage registrants would only normally be disclosed if they were material to a key project, and that project was material. Otherwise, the disclosure of exploration results would only occur in support of initial

		resources being reported for the first time. The threshold of materiality for exploration data reporting should be determined in this case by the registrant, and perhaps linked to the operating stage of the registrant. For Exploration stage registrants, this is likely to be very material, but for Production stage registrants, much less so as their income and asset value is linked predominantly to operations income and Mineral Reserves life. Rio Tinto would typically not report exploration results to market under CRIRSCO based on this materiality issue. Table 6 content (with the exception of in-situ as previously discussed) is supplied by Rio Tinto, though integrated with table 3 data. The mill feed and product criteria, as previously noted are not appropriate from Mineral Resource reporting and are in conflict with CRIRSCO, and therefore not supported.
100	Should we require that a registrant provide the property's location, including in maps, accurate within one mile? Why or why not? If not, should we use a standard for degree of accuracy similar to that used in the CRIRSCO-based codes, such as PERC or SAMREC? Why or why not? If not, what level of accuracy should we require?	Provision of maps would be a large burden for Rio Tinto. As noted, in 2015, Rio Tinto reported 63 Reserve items and 101 Resource items as an example. Location is described for all items, though detailed maps are not provided. When material updates are provided under CRIRSCO, Table 1 Summaries for Resources and Reserves include maps and sections.
101	Should we require that a registrant provide in tabular format each of the summaries required for its exploration activity, material explorations results, and mineral resources and reserves, as proposed? Why or why not? Should we require all of the information specified in Tables 4-8 to be in tabular form? Why or why not? Should we revise the proposed form and content of these tables? If so, how should we revise the tables' form or content?	Rio Tinto believes it provides the information types requested, at appropriate granularity in its annual summaries and tables, and submits that the form of the tables be flexible to the stage of the registrant, and the materiality to investors. The high granularity in tables 7 and 8 in particular would be a significant reporting burden, given the number of projects and properties reported, and the production stage of the registrant. Rio Tinto submits that Resource totals should always include Inferred, to ensure alignment to CRIRSCO (table 7).
102	Should we permit registrants to disclose estimates of mineral resources and reserves based on different price criteria, which may reasonably be achieved, in lieu of, or in addition to, the price which is no higher than the 24-month trailing average? Why or why not? What factors should we use to determine what may reasonably be achieved? Should we require all registrants to use the 24-month average spot price (or average over a different period) as the commodity price instead of as a ceiling? Why or why not?	As noted earlier, Rio Tinto does not support regulator price setting as a concept, and believes it to be in conflict with CRIRSCO approaches, under which Rio Tinto is required to report in its UK and Australian listings Should the SEC adopt this approach, particularly the 24 month position, Rio Tinto will likely need to supply substantially different disclosures in the US than the rest of the world. To an extent, this already occurs under IG7 with Mineral Reserves and is a source of investor confusion and additional compliance cost. The additional layer of uncertainty with two versions of Resources, and increased volatility of the 24 month period, will substantially add to both the compliance burden and lack of consistent disclosure to investors . Our preferred pricing approach is aligned to alternative 1 on page 206 of the proposed rules, whereby the qualified person and management view of long term trends is allowed, as under CRIRSCO. This would maximise international harmonisation.
103	Should we require the registrant to provide a comparison of the mineral resources and reserves as of the end of the last fiscal year against the mineral resources and reserves as of the end of the preceding fiscal year, with an explanation of any material change between the two, as proposed? Why or why not? Are there items of information that we should include in the comparison instead of or in addition to the proposed items of information? Are there any proposed items of information that we should exclude from the comparison?	Year on year comparisons for all reported resources and reserves are already supplied by Rio Tinto under its CRIRSCO filings. , Rio Tinto has no objections to continue the practice, within an appropriate table format. Under our CRIRSCO filings, discussion of material changes is included as footnotes, rather than within the table.
104	If the registrant has not previously disclosed material exploration results, mineral reserve or	Initial Resources and Reserves, and material updates under CRIRSCO released by Rio Tinto include a technical summary

	resource estimates in a filing with the Commission or is disclosing material changes to its previously disclosed exploration results, mineral reserve or mineral resource estimates, should we require it to provide a brief discussion of the material assumptions and criteria in the disclosure and cite to any sections of the technical report summary, as proposed? Should we require registrants to file updated summary technical reports to support disclosure of material exploration results, mineral resources or mineral reserves when the registrant is relying on a previously filed technical report summary that is no longer current with respect to all material scientific and technical information, as proposed? Why or why not?	based on JORC Table 1 and also complying with ASX listing rules. Rio Tinto would support such a rule, but would request that such summaries generated for CRIRSCO reporting be deemed acceptable for the SEC for the same purposes under the updated rule.
105	Regarding the proposed requirement to disclose a material change in mineral resources or reserves, should we adopt an instruction that an annual change in total resources or reserves of 10% or more, or a cumulative change in total resources or reserves of 30% or more in absolute terms, excluding production as reported in Tables 7 and 8, is presumed to be material, as proposed? Why or why not? If not, should we remove the materiality presumptions altogether or use different quantitative thresholds from those proposed? If the latter, what alternative thresholds or measure(s) should replace the proposed presumptions of materiality?	As noted in 104, Rio Tinto provides similar disclosure under its CRIRSCO listings. In terms of the 10% threshold, this should be guidance, and should be subject to reasonable materiality testing by the registrant. Additionally, mining depletion should be explicitly excluded as contributing to this trigger, as this is an expected outcome rather than a change in assumptions. If the trailing 24 month average pricing is used, that in and of itself may require a restatement and be a material change, even if there is no real world impact on the operations. Short term price vagaries can result in artificial changes not reflective of reality.
106	Should we require the disclosure in Tables 4 through 8 to be made available in the XBRL format? Why or why not?	Rio Tinto does not support the mandated table formats as noted previously in 96, 97, 98.
107	If we require the disclosure in Tables 4 through 8 to be made available in XBRL, are the current requirements regarding for the format and elements of the tables suitable for tagging? If not, how should they be revised? In particular, are the proposed instructions for Tables 4 through 8 sufficiently specific to make the data reported in the tables suitable for direct comparative analysis? If not, how should the instructions be revised to increase the usefulness of having the data made available in XBRL, including the comparability and quality of XBRL data?	Rio Tinto does not support the mandated table formats as noted previously in 96, 97, 98.
108	If we require Tables 4 through 8 to be made available in XBRL, is there a particular existing taxonomy that should be used? Alternatively, what features should a suitable taxonomy have in this case?	Rio Tinto does not support the mandated table formats as noted previously in 96, 97, 98.
109	Should we require the qualified person to include in a technical report summary the 26 items, as proposed? Are there any items of information that we should include instead of or in addition to the proposed 26 sections of the technical report summary? Are there any items of information that we should exclude from the proposed technical report summary?	Rio Tinto supports the inclusion of a technical report summary for initial or material changes to Mineral Resources and Mineral Reserves, but strongly requests that the SEC accepts reports prepared aligned with CRIRSCO based Codes (or JORC) Table 1 format be accepted. Instruction under CRIRSCO requires the QP to provide commentary on all material items, regardless of whether or not they directly feature in the Table 1 criteria list, and Rio Tinto recommends a similar approach be required for the SEC rules.
110	As previously noted, the qualified person would have to apply and evaluate relevant modifying factors to assess prospects of economic extraction or to convert measured and indicated mineral resources to proven or probable mineral reserves. These would include a variety of factors such as economic, legal, and environmental as discussed more fully above. For example, to apply and evaluate legal factors the qualified person must examine the regulatory regime of the host jurisdiction to establish that the registrant can comply (fully and economically) with all laws and regulations (e.g., mining; environmental, including regulations governing water use and impacts,	As above, Rio Tinto submits that the CRIRSCO approach is to require commentary on all material items should be adopted, rather than to try and anticipate all permutations for different situations and deposit types and expressly write them into the rules Specifically highlighting some issues may lead to other project specific issues being undisclosed. The QP responsible for the Technical Report is qualified and obligated to determine what material items require additional commentary. With regards to legal permitting, the QP must comment on the tenure position, overall development and operating rights and highlight any elements still in progress on a risk weighted basis. Minor permitting in progress (through an understood process), if

	waste management, and biodiversity impacts; reclamation; and permitting regulations) that are relevant to operating a mineral project using existing technology. Should we expand proposed Item 601(b)(96)(iv)(B)(19)(vi) to provide additional specific examples, in addition to those set forth in Items 601(b)(96)(iv)(B)(19)(i)-(iv), of "issues related to environmental, permitting and social or community factors" that the qualified person must include in the technical report summary? For example, should we expressly require that the qualified person include a discussion of other sustainability issues such as how he or she considered issues related to managing greenhouse gas emissions or workforce health, safety and well-being? Are there other items for which it would be appropriate to require the qualified person to include a discussion in the technical report summary? If so, please provide examples and explain why.	in alignment to development timelines, is not by itself a barrier to declaration of Mineral Reserves. Not all operating permits can be granted prior to construction and commissioning; many require inspection and sign-off by local authorities after construction. Likewise, authorities can insist on completion of Feasibility Studies and submission of Mineral Reserves, before granting of final development consents. In the same way secure tenure and development consent are primary, as opposed to many lower level specific permits, a summary of the primary agreements in social and community factors should be disclosed A degree of flexibility is required given the many differing mineral rights and permitting processes in different countries and regions, but in all cases the qualified person must flag any material risks.
111	Should we require, as proposed, a qualified person who prepares a technical report summary that reports the results of a preliminary or final feasibility study to provide information for all 26 items? If not, which items should not be required? Should we require, as proposed, a qualified person who prepares a technical report summary that reports the results of an initial assessment to provide, at a minimum, the information specified in paragraphs (iv)(B)(1) through (13) and (iv)(B)(22) through (26) of proposed Item 601(b)(96)?	Rio Tinto supports the inclusion of a technical report summary for initial or material changes to Mineral Resources and Mineral Reserves, but strongly requests that the SEC accepts reports aligned with CRIRSCO-based Codes (or JORC) Table 1 format.
112	The proposed rules would permit a qualified person who prepares a technical report summary that reports the results of an initial assessment to use mineral resources in economic analysis (and provide the information specified in paragraph (iv)(B)(21) of proposed Item 601(b)(96)). Should we permit a qualified person to do so if he or she wishes?	Rio Tinto submits that the definition of initial assessment should be formally aligned with the CRIRSCO Scoping Studies definition, and that CRIRSCO qualifying reports with appropriate qualified person sign-off be acceptable to the SEC. To the extent that initial economic analysis has been carried out, it should be able to be disclosed by the QP. Cautionary language, clarifying the nature of the assessment is advised as noted in section 72 above.
113	Should we require a qualified person who prepares a technical report summary that reports material exploration results to provide, at least, the information specified in paragraphs (iv)(B)(1) through (11) and (iv)(B)(22) through (26) of proposed Item 601(b)(96), as proposed?	A qualified person preparing a technical reporting summary that reports material Exploration Results should provide the information specified, and report on progress on each of the elements listed. Rio Tinto also requests that CRIRSCO qualifying reports for Exploration Results with appropriate qualified person sign-off be acceptable to the SEC.
114	Should we preclude a qualified person from disclaiming responsibility if he or she relies on a report, opinion, or statement of another expert who is not a qualified person in preparing the technical report summary, as proposed? Why or why not?	Rio Tinto endorses the detailed submission by the SME on this issue (section 2.5). Rio Tinto submits that the SEC should allow the Qualified Person to disclaim responsibility (limited liability) if he or she relies on a report, statement or another expert who is not a Qualified Person. The exclusions allowed under NI 43-101 for non-engineering and non-geoscience inputs is a useful approach, as the experts in these areas are not able to qualify as QP's by education. These areas of limited liability should be clearly stated in the report. The proposed approach raises the QP's liability to that of the registrant's directors and officers, who must retain overall liability for the statements of their company. This is inappropriate and may well overly burden the reports, cause undue disclosure of all conceivable risks even if unrealistic, cause the process to be excessively costly, and actually result in less valuable information to the investor as QPs would seek to minimize liability exposure by over-inclusiveness of information and risk analysis. The use of multiple qualified persons with specific expertise should be accepted and encouraged by the SEC as in the CRIRSCO environment, as an additional control for this issue.
115	Should we require that the technical report summary not include large amounts of technical or other project data, either in the report or as	The technical summary should be concise and in clear language – the audience is the investor, not technical experts.

	appendices to the report, as proposed? Why or why not? Should we require a qualified person to draft the technical report summary to conform, to the extent practicable, with plain English principles under the Securities Act and Exchange Act, as proposed?	Technical reports can be very large. For major projects, Pre-Feasibility and Feasibility Studies can run into many volumes. This level of detail should not require direct disclosure, rather a summary of key findings signed off by a Qualified Person.
116	Should we require registrants to describe the internal controls that they use to help ensure the reliability of their disclosure of exploration results and estimates of mineral resources and mineral reserves, as proposed? Should we require that such internal controls disclosure address quality control and quality assurance programs, verification of analytical procedures, and comprehensive risk inherent in the estimation, as proposed? Are there other items, in addition to or in lieu of those proposed items that should be included in such disclosure? Are there items that should be excluded from the proposed internal controls disclosure requirement? In each case, why or why not?	Rio Tinto supports the requirement for the registrant to provide commentary on their internal controls as applied to Resources and Reserves reporting, QP appointment and any corporate auditing or assurance functions that been put in place to help ensure the reliability of their mineralisation estimates. Rio Tinto provides a similar report in its CRIRSCO environment under ASX listing rules. At the summary report disclosure level, the QP is required to comment on quality control and quality assurance measures, audits and peer reviews etc.
117	Should we require registrants to describe the internal controls that they use to help ensure the reliability of their disclosure of exploration results and estimates of mineral resources and mineral reserves, as proposed? Should we require that such internal controls disclosure address quality control and quality assurance programs, verification of analytical procedures, and comprehensive risk inherent in the estimation, as proposed? Are there other items, in addition to or in lieu of those proposed items that should be included in such disclosure? Are there items that should be excluded from the proposed internal controls disclosure requirement? In each case, why or why not?	As 116.
118	Should we amend Form 20-F to conform it to the disclosure requirements of subpart 1300 of Regulation S-K and Item 601(b)(96), as proposed?	Rio Tinto supports the amendment of Form 20-F to conform it to the disclosure requirements of subpart 1300 of Regulation S-K and Item 601(b)(96), although a better approach would be to allow Form 20-F registrants to simply adopt the existing CRIRSCO reporting requirements already in place..
119	Should foreign private issuers that use or refer to Form 20-F for their SEC filings be subject to the same mining disclosure requirements as domestic mining registrants, as proposed? Why or why not?	Yes.
120	Should we continue to permit Canadian issuers to provide disclosure under NI 43-101, as they are currently allowed to do pursuant to the foreign or state law exception, as an alternative to providing disclosure under the proposed rules? If so, what would be the justification for such differential treatment?	Other foreign reporting registrants should be allowed to report in their native CRIRSCO conforming formats for technical summaries and tabulations (e.g. JORC Table 1, section 1-4 for Mineral Reserves criteria). This would reduce the reformatting burden and allow a single version of the Resource and Reserves to be in existence across markets. Conforming QP sign-off is a pre-requisite for this reciprocity approach. If CRIRSCO code alignment can be achieved, the advantage to US registrants would be recognition of SEC submissions as CRIRSCO conforming in foreign markets.
121	Should we amend Form 1-A to require Regulation A issuers engaged in mining operations to refer to, and if required, provide the disclosure under subpart 1300 of Regulation S-K, in addition to any disclosure required by Item 8 of that Form, as proposed? Why or why not? Alternatively, should the disclosure requirements in proposed subpart 1300 apply to only some Regulation A issuers (e.g., Regulation A issuers in Tier 2 offerings)? Should we instead exempt all Regulation A issuers from the proposed subpart 1300 disclosure	Regulation A issuers should also disclose under subpart 1300 of Regulation S-K, in order to align reporting standards for Exploration Results, Mineral Resources and Mineral Reserves regardless of the type of registrant.

	requirements?	
122	In lieu of imposing full subpart 1300 disclosure requirements on Regulation A issuers, should we limit, in whole or in part, the proposed subpart 1300 disclosure requirements for issuers in Regulation A offerings? If so, should these requirements be limited only for issuers in Tier 1 offerings? Why or why not? Further, which provisions of proposed subpart 1300 should, and should not, apply to issuers in Regulation A offerings? For example, should we require compliance with Item 1302's requirement to file the technical report summary as an exhibit only in Tier 2 offerings?	As121.
123	Would limiting disclosure of the information required under proposed subpart 1300 for issuers in Regulation A offerings increase the risk of inaccurate disclosure in such offerings or otherwise increase risks to investors?	As 121.
124	We seek comment and data on the magnitude of the costs and benefits identified as well as any other costs and benefits that may result from the adoption of the proposed rules. In addition, we are interested in views regarding these costs and benefits for particular types of covered registrants, such as smaller registrants or registrants currently reporting according to CRIRSCO-based disclosure codes.	Rio Tinto commends the SEC for its efforts to modernise and update the disclosure framework for Exploration Results, Mineral Resources and Mineral Reserves. The more closely aligned with CRIRSCO standards, the more efficient and transparency that will be obtained enhancing market valuation of the registrant, efficiency in cross-jurisdictional reporting, and clarity to the investor. For existing CRIRSCO reporting entities, the potential costs are dependent on the number of exclusions and variations from a CRIRSCO code base that the SEC chooses to adopt. Every variation adopted raises the cost of compliance for foreign registrants already reporting under CRIRSCO. Of particular concern is the proposal for trailing 24 month prices (for both Resources and Reserves) and other assumptions elements which could create the requirement for full recalculation of Resources and Reserves due to differing prescribed inputs. Potential separate versions for every reported Resources and Reserves element would be a huge impost and would create significant market uncertainty as investors struggled to understand why a given property had different Mineral Reserves and value in different markets. If convergence to CRIRSCO can be delivered, the costs will be substantially lower, and US investors will be able to view a much richer disclosure than currently allowed under IG7. US registrants will incur cost for the first time in employing QP's and coming to terms with a new requirement for Mineral Resource disclosure, but this is viewed as important in achieving harmonisation and alignment with international reporting of Resources and Reserves.
125	We seek information that would help us quantify compliance costs. In particular, we invite comment from registrants or other mining companies that have had experience reporting under any of the CRIRSCO-based disclosure codes. For example, what are the costs associated with the qualified person requirement? If reporting in Canada or Australia, what are the costs associated with producing and filing the technical report summaries?	For Rio Tinto, the costs of retaining existing QP's are neutral as they are already in place, though a requirement for independence would create a substantial cost both in selection and bringing them into the process at each project, and then building their involvement and familiarity. Rio Tinto had 57 QP's in place in 2015, 46 of which are employees. If independence was required, 46 professionals would need to be identified and recruited. The independent QPs would then have to research all reported deposits and technical inputs to reach familiarity, understanding and competence to sign-off. Likely timeframe would be 4-6 weeks per QP from a standing start in the first year, and longer for the QP's that are signing off on multiple deposits. That would be costly and burdensome from both a document and data assembly and time standpoint as well as the cost for the outside consultant.
126	We invite comment on the structure of compliance costs. In particular, to what extent are the	If the underlying CRIRSCO definitions and inputs are aligned, a second element of cost can be if customised SEC reporting

	compliance costs fixed versus variable? Are there scale advantages or disadvantages in the compliance costs, both in terms of project size or company size?	formats or tabulations are adopted. This would have a significant year one setup cost, with ongoing annual reformatting but does not trigger recalculation, limiting the impost on the QP's and technical teams. If deviations from CRIRSCO standards are embraced, there would be substantial duplication of costs for both QP's as well as the various reporting data that would be required.
127	Are our estimates of the difference in costs of a pre-feasibility study relative to a feasibility study reasonable? If not, what would be more reasonable estimates of the difference in costs?	For major projects, Pre-Feasibility Studies can cost around 30 to 50% of the cost of Feasibility Studies. Rio Tinto notes that there is a significant range depending on whether it is a Greenfields location and level of existing infrastructure for the project
128	We also seek comment on the alternatives to the proposed rules discussed in this section, and to the costs and benefits of each alternative. Are there any other alternatives that we should consider in lieu of the proposed rules? If so, what are those alternatives and what are their expected costs and benefits?	See comments in 124. As noted previously, Rio Tinto submits that maximum alignment to CRIRSCO definitions, processes and reporting requirements is in the best interest of both US registrants and foreign registrants. This provides an opportunity to strengthen disclosure quality and market transparency, both in the US and the global market.
129	We are interested in comments and data related to any potential competitive effects from the proposed rules. In particular, we are interested in evidence and views on the current global competitive situation of U.S. mining registrants as well as the attractiveness of U.S. securities markets for foreign mining companies. To what extent does the current mining disclosure regime affect this competitive situation, if at all? Would the proposed rules improve the global competitiveness of U.S. mining registrants and securities markets? If so, how?	Rio Tinto believes adoption of CRIRSCO based reporting would increase the attractiveness of US listing for domestic registrants, particularly in the Exploration and Development stage companies, who typically list in Canada due to the inability to describe these assets under IG7. For foreign registrants, the potential to align their native CRIRSCO disclosure to US SEC disclosure would be beneficial to their investors, by allowing normalisation of data provided across markets, ensuring all investors have access to the same data and QP sign-off, resulting in better transparency and clarity to investors, and more appropriate market valuation of the registrant.