Development of Bridging Documents between National Standard of the People's Republic of China Classification for Solid Minerals and Petroleum Resources/Reserves and UNFC

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On behalf of Mineral Resources Reserves Evaluation Center

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In order to implement the cooperation agreement, the former Ministry of Land and Resources (MLR) of People’s Republic of China specially established a research subject in September 2015 to launch the research on working out bridging documents between National Standard of the P.R.C. Classification for Mineral and oil & gas Resources/ Reserves and United Nations Framework Classification for Resources (UNFC).

The Chinese experts team worked closely with Expert Group on Resources Classification (EGRC) and its Techniques Advisory Group (TAG) and finished two bridging documents (public drafts):
- National Standard of the P.R.C. ‘Classification for Resources/Reserves of Solid Fuels and Mineral Commodities’ (GB/T 17766-1999) and UNFC
- National Standard of the PRC ‘Classification for Petroleum Resources/Reserves’ (GB/T 19492-2004) and UNFC

As authorized by Mr. Qiang Yang, head of Mineral Resources Reserves Evaluation Center (MRREC) of the former MLR, I would like to present to you the bridging work progress.
I. Bridging work progress
II. Major experience of bridging work
III. Next work consideration
I. Bridging work progress

I.1 First draft phase

- April, 2015, signed the bridging document agreement and established the joint working group during 6th meeting of EGRC.

- June, 2015, held China-Ukraine classification of mineral resources reserves seminar in China.

- February, 2016, held technical exchanges with Mr. Dominique, representative of TAG in Beijing.

- April, 2016, Chinese experts and TAG joint working group discussed the bridging framework of classification during the 7th meeting of EGRC.

- September, 2016, Mr. Scott FOSTER, director of Sustainable Energy Division, UNECE delivered a speech and held a high –level panel discussed how to progress the bridging work deeply during China mining conference during China International Mining Expo 2016.
I. Bridging work progress

- February, 2017, Chinese experts team provided the first draft of the bridging documents.
- March, 2017, TAG provided suggestions and amendments to the draft and questions to be further discussed.
- April, 2017, Chinese experts team submitted the English, Russian and French versions of first draft of bridging documents.
- April, 2017, Ukraine-China classification of mineral resources/reserves seminar was held in Ukraine.
I. Bridging work progress

1.2 Discussion paper phase

- On 25th April, 2017, Mr. Bach (the former deputy secretary general of the United Nations) met Chinese experts team members. TAG representatives listened to the introduction from Chinese experts team members, discussed and reviewed two comparative documents. On 27th April, 2017, 3 Chinese representatives introduced the bridging documents which were deliberated and approved during the 8th EGRC meeting.
I. Bridging work progress

- On 7th September, 2017, Mr. Yueming LING, the former Vice Minister of MLR (current vice minister of MNR) held the project meeting to review and pass two bridging documents.

- In December 2017, the bridging documents were approved and agreed to be published online during the ministerial meeting.

- On 23rd September, 2017, Mr. Scott FOSTER, director of Sustainable Energy Division, UNECE delivered a speech of sustainable energy during China International Mining Expo 2017 where the Chinese representatives exchanged bridging results and the Ukraine representatives introduced mapping research results.
I. Bridging work progress

I.3 Public draft phase

- 5th January- 5th February, 2018, two bridging documents were put on the website of the former Ministry of Land and Resources for public comments and received no suggestions on revision.

- January-February, 2018, two teleconferences were held. Chinese experts team reached agreement with EGRC Secretariat on public comments on the UNECE website and joint release planning of the bridging documents and exchanged technical ideas on the bridging documents with TAG.

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**To:** Mr. LI Jian, Ms Yang Hua  
**From:** J R Dixon, Review Lead, and Alistair Jones, TAG Chair  
**Subject:** TAG Review of Bridging Document (BD) between the National Standard of the People’s Republic of China for Classification of Resources/Reserves for Solid Fuels and Mineral Commodities (GB/T 17766-1999) referred to as CCMR-1999 and the United Nations Framework Classification for Resources (UNFC)

The following provides feedback to MLR on the bridging document reviewed in June 2017 and then on the updated bridging document (P020180105500011990310) received in January 2018.

1. Discussion between TAG and the representatives of the Ministry of Land and Resources (MLR) commenced at the 7th session of the EGRC.
2. TAG supplied comment on the CCMR-1999 prior to the 8th session of the EGRC. The comments were mainly regarding (a) the inclusion of Basic Reserves which were equivalent to Resources in the UNFC and (b) the splitting of Resources into Marginal Economic and Sub-marginal Economic.
3. Discussions continued at a workshop held in Geneva prior to the 8th session and at meetings during the 8th session itself. Clarification was sought on the application of General and Verified Industrial Indexes to mineral projects. It was established that the application of industrial indexes was equivalent to Scoping, Pre-feasibility and Feasibility Studies.
4. Further discussion subsequent to the 8th session centered mainly on Figure 6 in the BD which maps CCMR-1999 to UNFC-2009 on the E-F axes. Agreement was reached on the matrix.
5. A draft final document was circulated to the TAG for comment during the week of 29 May to 2 June. Comments received were addressed or explained.
6. Minor editorial changes are required including whether reference is made to UNFC-2009 or UNFC for Resources.
7. The BD has been reviewed by the TAG and it is recommended to the Bureau of the EGRC that the document be issued for public comment subject to minor editorial changes.

J.R. Dixon  
June 6, 2017

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**Date:** 29 Jan 2018  
**To:** Mr. LI Jian, Ms Yang Hua  
**From:** Dominique Salacz, SPEE Representative at the EGRC.  
**Alistair Jones, TAG Chair**  
**Subject:** TAG Feedback to MLR on the draft Bridging document between CCPR2004 and UNFC

**Summary**

The latest petroleum bridging document (P020180105500011990310) provided by the MLR has been reviewed, and TAG members have made their comments.

While minor edits have been suggested, there is a consensus that the document provided appears broadly consistent with both the UNFC and CCPR. The changes suggested are very much for clarity and consistency through the text, but it will not affect the technical reliability of the document.

As such, our recommendation is to see if those minor changes can take place in the short term, and send the document for public comment.

**Detailed suggestions**

The following edits were suggested by TAG members

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**Conclusion**

Based on the above, our suggestion is to:

1. Provide the review comments to the MLR so they can consider making the suggested changes
2. Send the document to UN proof reading for grammatical edits if required
3. Recommend to the EGRC Bureau to send the document for public comment
I. Bridging work progress

- 15th February-15th April, 2018, the two bridging documents were published on the website of UNECE.

- Until 16th April, 2018, three public comments were received, with no substantial modification.
I. Bridging work progress

- Two bridging documents drafts’ publicity period dated from 15th February to 15th April, 2018.


I. FOREWORD

II. OVERVIEW OF GB/T 17766-1999
   II.1 Brief introduction of GB/T 17766-1999
   II.2 Characteristics of GB/T 17766-1999

III. OVERVIEW OF UNFC-2009

IV. AXIS CORRESPONDENCE
   IV.1 Correspondence of G axis
   IV.2 Correspondence of F axis
   IV.3 Correspondence of E axis

V. CORRESPONDENCE OF CLASSES AND CATEGORIES

JAN 2018


I. INTRODUCTION

II. DIRECT MAPPING OF CATEGORIES AND SUB- CATEGORIES
   A. Application of the G-axis (confidence in the geological knowledge and potential recoverability of the quantities)
   B. Detailed mapping of the E and F axes
   C. Exploration projects
   D. Additional Quantities in Place

III. SUB-DIVISION OF GB/T 19492 -2004 CATEGORIES INTO MULTIPLE UNFC-2009 SUB-CATEGORIES
   E. Commercial projects sub-categorization
   F. Potentially commercial and non-commercial projects sub-categorization

IV. MAPPING OF THE EXPLORATION AND DEVELOPMENT PHASES IN GB/T 19492 -2004 TO THE PROJECTS IN UNFC-2009

V. UNDEFINED AND UNCLASSIFIED QUANTITIES IN GB/T 19492 -2004

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II Major experience of bridging work

1. The interconnection between Chinese standards and international standards is a specific action to promote the development of a community with a shared future for mankind and "The Belt and Road" cooperation, which has a great significance for the cooperation and exchange in the global energy resource fields.

2. UNFC’s openness, inclusiveness and adaptability are the foundation of the bridging work. The bridging work has further interpreted UNFC’s role as a communicative platform of global energy and mining industry.

3. High-level attention and close technological collaboration of both parties are the key to successful bridging.
   ✓ TAG appointed Mr. Roger Dixon and Mr. Dominique Salacz to be in charge of technical support of bridging documents on solid mineral resource and oil and gas resource respectively.
   ✓ The former MLR launched two projects of comparative study of international classifications of solid mineral and oil and gas resources respectively and provided special research fund.
   ✓ The MRREC established expert teams to carry out effective technical exchanges and cooperation with TAG.
1. The Chinese expert team and TAG should have further communication on the technical details of the bridging documents after the publicity and then form the final bridging documents for the approval of the Sustainable Energy Commission of UNECE.

2. Jointly publish two bridging documents during the annual meeting of Sustainable Energy Commission of UNECE in September of 2018 according to plan.

3. Choose representative cases and launch further testing work on bridging documents.

4. The Chinese party would like to join the updated research of UNFC, and hope to send staffs to TAG and participate more.
Acknowledgements

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*Sincere thanks* to Mr. John Etherington, Mr. Alistair Jones, Mr. Roger Dixon, Mr. Dominique Salacz and other members from TAG of EGRC for the hard work on preparation of bridging documents!

*Sincere thanks* to the outstanding contribution of bridging work from Mr. Dawei ZHANG, the former director (retired) of Mineral Resources Reserves Evaluation Center of the former Ministry of Land and Resources!

*Sincere thanks* to the support and help from CRRISCO, State Commission of Ukraine for Mineral Reserves, Mining and Geological Survey of Hungary, Polish Geological Institute, and British Geological Survey, etc.!

*We sincerely hope* that representatives from all nations would give us precious opinions and suggestions for bridging work!

*And we sincerely hope* to have continuous support and help from all of you in the future!