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OF MINING AND METALLURGY  
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The Secretary  
Joint Standing Committee on Migration  
Parliament House  
Canberra ACT 2600

Dear Secretary,

**Review of Australia's skilled labour migration and temporary entry programs –  
Submission by The Australasian Institute of Mining and Metallurgy**

The Australasian Institute of Mining and Metallurgy welcomes the opportunity to make a short written submission to the Enquiry. The Institute has not undertaken any basic research nor collated specific evidence or statistics in the preparation of this submission. The Institute is however taking the opportunity to highlight some trends which are taking place in the minerals industry which impact on the professionals in the industry and which create opportunities for Australia to become the prime source of professionals throughout the international resources industries.

**1. Who are we and whom do we represent?**

The Australasian Institute of Mining and Metallurgy (The AusIMM) has been in existence for 109 years and throughout that time has been the pre-eminent body representing the professionals in the Australasian minerals and supportive industries. Mining Engineers, Geologists and Metallurgists make up the majority of the 7,500 members although there is a growing number of Environmental Scientists and other tertiary qualified professionals. They are employed by mining companies, government, research institutes and universities with an ever increasing number of contractors and consultants based throughout Australia, New Zealand and other overseas countries.

Under The AusIMM Code of Ethics members are committed to take responsibility for the welfare, health and safety of the community at all times before their responsibility to the profession, sectional and private interests or to other members. As a consequence, the members are committed to sustainability of our resources and to enhancing their professional excellence and their industry.

## **2. Australia is a minerals dependant economy!**

“Mineral and energy exports have contributed more than \$500 billion to Australia’s wealth over the past 20 years. In 2000–01 these exports were worth \$55.6 billion (up 27% over the previous years). They currently constitute 47 percent of Australia’s merchandise exports and 37 percent of total exports including services. They comprise eight of Australia’s “top 10” commodity exports.<sup>1</sup>

As well, roughly \$2 billion is earned from the export of high technology mining products and services, and the mineral industry pays around \$5 billion in taxes, royalties and transport levies annually to government.<sup>2</sup>

The Federal Government acknowledged in 1999, “that the resources industries are the backbone of the Australian economy. Without their contribution of \$40 billion to exports, we would be a different country.”

In 2000, Australia was among the top three producers for 10 of the world’s most important minerals. Exports have grown from \$7 billion AUD in 1980-81 to \$55.6 billion in 2000-01. Minerals direct contribution to GDP has been around 9% for the past decade and the sector accounts for just under half of all merchandise exports, which is of enormous significance for an economy often running an international current account deficit. Additionally, we export our professionals’ intellectual property. For example, we lead the world in the development of mine planning software now used by at least 70% of all large mines in the world. Minerals and petroleum provide jobs for 83,000 people and generate a further 327,000 manufacturing jobs downstream. Regional Australia, in particular continues to benefit from the resources industry. Mining companies have built 25 towns, 12 ports and 20 airfields since the 1960’s.

## **3. Employment Trends in the Industry!**

Despite the mining sector experiencing growth in outputs and exports, the labour force is declining. Although, mineral industry real growth in output is increasing at 4.2% per annum, employment in the mining sector has continued to decrease at a rate of 1.9% per annum since 1994/95 (DISR, 2001). This is due in part to the introduction of new technologies and rationalization and consolidation of companies, to improve their international competitiveness. Mergers and takeovers result in relocations and redundancies, contributing to a declining employment market. In addition, many corporate activities are now being outsourced to consultants and contractors.

The mining sector in 1999 relied on a higher proportion of highly skilled workers, than low skilled workers, and to a lesser amount on middle skill level workers, whilst experiencing an overall declining workforce (DISR, 2001). Whilst the mining sector still relies on highly skilled workers, there are changes occurring within the employment structure. For example, many companies are relying on more technically qualified people with TAFE certificates in practical computer training to operate their

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<sup>1</sup> Jacques, L and Huleatt, M (2002) AusGeo News 64: 3-7

<sup>2</sup> Senator Minchin 1999

systems rather than degree qualified professionals. In addition, land access issues and a bottom-line driven industry, are decreasing the number of geoscientists employed in exploration in favour of increasing shareholder return.

A surplus of degree qualified professionals, means more competition for the reducing number of jobs in the industry, forcing qualified minerals industry professionals to retrain and enter other industries. This loss of qualified people is further exacerbated by other industries such as the IT industry poaching top students with incentives such as on-the-job retraining, guaranteed employment, high salaries, and a perceived more attractive lifestyle. For example, many qualified minerals industry professionals such as mining engineers are attracted to other subsidiary careers such as finance/banking rather than on site positions. This is attributable to the many factors influencing the overall attractiveness of the industry to qualified graduates such as an increase in Long Distance operations.

Another trend is the increasing number of Environmental, Social or Community Affairs, Public Relations professionals employed by the minerals industry. This is related to the increasing pressure from the community for social and environmental responsibility of mining companies and hence maintain a "licence to operate." This negative public image constrains its capacity to influence government, community and attract high caliber graduates (Dept of Education, Training and Youth Affairs, 2001).

#### **4. Globalisation, Centralisation and Sustainability**

The two big and fundamental changes now impacting on our industry and its professionals (our members) are the drive for sustainability and the move to consolidation and Globalisation. The AusIMM has constructively addressed the former, by redefining its basic ethical responsibilities and now must work to reposition and empower these wealth-generating professionals in a globalising industry. The differentiating characteristic of the Institute in the minerals sector is that it is about people and expertise ---intellectual capital--- at a time when this is especially valued by government and community. For example, exports of Australian mining related intellectual property totaled over \$1 billion in 1999-2000. Other world-class processes include advance electronic blasting, Atomic Absorption Spectrometry, aluminum smelter innovations, Becher process, bioheap bacterial leaching, HISmelt, SIROMELT, Jameson Flotation Cell, P9 Project, robotics processes etc. etc. etc.

However, the human capital in the industry is faced with uncertainty as to the place that the Mineral industry will hold in the future economic development of Australia and whether their experience, skills and talents will be a sought after commodity either locally or internationally.

The rate of consolidations, mergers and acquisitions will not slow down; neither will the calls for sustainability of every part of the Industry in order to get and continue to have a license to operate.

#### **5. Skill Needs to address a changing landscape**

In the last half of the year 2000, the AusIMM took the lead in a study funded by DETYA and several major mining corporations to address the question – Are we confident that the minerals industry has the professional staff capability to appropriately position it to meet the demands of tomorrow?<sup>3</sup>

Over 150 professionals were interviewed by the consultants, World Competitive Practices, as to the current challenges facing the industry. In summary, the outcomes were:

- an increasing trend towards globalisation
- an increasing use of new technologies to reduce costs and increase outputs
- commodity prices continuing to fall
- the attractiveness of the industry was decreasing
- there was a lack of shared vision within the industry
- the prevailing culture was not conducive to responding effectively to the challenges
- investors with an increasing focus on short term returns
- an ever increasing squeeze in the capital markets
- restricted and reduced access to land
- an inability to attract and retain the required talent to grow the industry.

Unfortunately, these outcomes did not pick up the many good things, which are occurring in the industry, such as technological developments, environmental performance and emphasis on sustainability and a desired engagement with external stakeholders.

A consensus of observations, however, was distilled into 8 principle findings:

- (i) The negative image of the industry constrains its capacity to effectively influence community and government.
- (ii) A major repositioning of professional staff competencies is required.
- (iii) Existing organizational arrangements and capabilities are under pressure to change.
- (iv) It will be difficult to access professional staff of the required capability.
- (v) The industry is facing significant external challenges with a real concern about capacity to address them.
- (vi) The prevailing culture is not suited to the needs of the future.
- (vii) The fragmentation of the industry leads to a lack of shared vision/voice, and
- (viii) There is a need for change.

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<sup>3</sup> Rising to the Challenge – Building professional staff capability in the Australian Minerals industry for the new century. Report prepared by World Competitive practices Pty Ltd for DETYA and The AusIMM

## **6. What the AusIMM is doing**

How does a “traditionally learned” Institute react to the challenges and opportunities created by:

- Globalisation and concentration of the Industry
- The ever increasing calls for sustainable development
- The ever increasing calls for self regulation and ethical behavior on a world wide scale
- The challenges of greater technical innovation and change
- Changing employment practices by international corporations (use of consultants, contractors, level of commitment to employees CPD, International flexibility and recognition of qualifications, FIFO, duty of care, etc)
- The need for more appropriate and effective risk, environment and OH&S management
- Other cost and regulatory pressures.
- Declining commodity prices.

The Institute can react, by supporting and assisting the professionals in the Minerals and related industries, to:

- keep abreast of the latest technological developments and opportunities
- manage and develop their careers whilst successfully managing all compartments of their lives (social, religious, family, health, etc)
- be flexible, transferable and accountable whilst their qualifications, competencies and experiences are recognized world wide
- acquire the broader range of skills to cope with and be successful in the ever-changing environment, particularly to address their emotional intelligence
- accept opportunities to network with fellow professionals in the minerals industry to their mutual advantage
- understand and accept the advantages of embracing diversity
- be aware of issues which may impact on their current and future employment and careers
- take pride in themselves, their profession, their industry, and their employer, to be informed and to speak out in support of all of these
- adhere to codes of conduct supported by ethical processes wherever they practice in the world
- lead passionate and fulfilling lives.

The Institute is addressing these challenges so that we can provide career support for professionals in the Minerals Industry who are committed to continuing professional development of both themselves and in the broader community in which they work and play. For example, provision of International Conferences, Proceedings and Transactions and International reciprocal recognition of qualifications and competencies.

These opportunities must also be addressed by the Tertiary Education sector as they endeavour to provide graduates which will meet the needs of the Global Corporations

wherever they practice. Australia has the opportunity to continue to be the source of professionals for the worldwide Minerals Industry. The AusIMM will play its part to ensure its members are equipped to fill the expectations of those who seek fully qualified Professionals.

#### **7. The Opportunities – Skilled Migration and Temporary Entry Programs**

The opportunities are clearly outlined in the above analysis. Australia has the opportunity to provide the skills to a global industry. However, the answers are not in creating barriers to entry but in creating opportunities for Australians to practice their skills anywhere in the world. The Institute is participating in programs on a bilateral basis to recognise international qualifications. Similarly it is imperative that individuals entering Australia must possess equivalent qualifications to ensure that professional standards are not eroded. Thus skilled migrants must be encouraged to join professional institutes and commit to CPD programs.

The challenge is made harder by the consolidation of the major mining companies with their decision making process being made overseas when analysing their product portfolios.

The Federal Government has stated that it is committed to a knowledge economy, it must now turn the rhetoric into action and invest in higher education so that the skilled outputs from our educational system are the first choice of employees of the International mining companies. These companies will then become dependant on the Australian Education system.

In conclusion, the Institute has taken the opportunity to outline the major trends which are impacting on the Industry and the future for the professionals in the industry. Hopefully the Tertiary institutions who provide the professionals and skilled labour will be supported by the Government to ensure their outputs are internationally competitive and there will not be a need to import these skills whether permanently or by temporary entry programs.

Regards,



Don Larkin  
CEO – The AusIMM