BULLETIN N° 140
ISSN 1019-2026

TIC

TANTALUM-NIOBIUM INTERNATIONAL STUDY CENTER

PRESIDENT'S LETTER

Dear Friends,

December is a time to reflect on the challenges that have faced the tantalum and niobium industries over the last twelve months caused by the worldwide recession, not least the closure of tantalum mines in Australia, Canada and Mozambique. Unfortunately we have ourselves lost some members; however we welcome four new members to our Organization.

The recent General Assembly held in Tallinn was a great occasion, thanks to the sterling efforts made by our hosts, AS Silmet. We were honoured with the presence of the President of Estonia and his wife to the Monday evening banquet. The mediaeval lunch at Rakvere castle was to me also especially memorable – a wonderful finale to a busy but enjoyable few days. May I take this opportunity to thank all the people at Silmet who made the Assembly and the plant tour such a success. Thanks also to all the speakers who contributed to the technical sessions.

I would like to thank our outgoing President, Isildo de Vargas. His dedication and quiet good humour are much appreciated by the Executive Committee, as we tackle some difficult subjects, including the Artisanal & Small Scale Mining Policy. We said goodbye with sadness and thanks to David Reynolds, who has retired from Kemet and the Executive Committee and whose contributions over many years will be much missed. We welcome Dr Lohwasser and Mr Gagarin representing Kemet and NAC Kazatomprom respectively.

However, the T.I.C. would not function without our dedicated Secretary General, Emma Wickens – I thank her on behalf of all the membership for her work over the last twelve months, and in advance for the guidance she will be giving me in the next twelve months.

We hope that by the time our next Assembly takes place at Lake Tahoe, U.S.A., the industry will have recovered, and that our Organization will also have weathered the storm and be stronger than ever.

I send you all my Season's Greetings and wish you a happy New Year.

Richard Burt
President

CONTENTS

FIFTIETH GENERAL ASSEMBLY

The Tantalum-Niobium International Study Center held its annual conference in Tallinn, Estonia, from October 18th to 21st 2009. This meeting was a special event in the life of the association as it marked the Fiftieth General Assembly and also the thirty-fifth anniversary of the foundation of the T.I.C., back in 1974.

On October 19th and 20th, technical presentations were given, in two half-day sessions. The paper presented by the T.I.C. Technical Promotion Officer is printed in this issue of the Bulletin, and some of the other papers will be published in future editions.

Delegates, guests and accompanying persons enjoyed a Welcome Reception on Sunday evening and a Gala Dinner on Monday night. Mr Toomas Ilves, President of the Republic of Estonia, and his wife attended the Gala Dinner, which was a great honour for Silmet and for the T.I.C. Entertainment was provided by a group of Estonian folk dancers, giving a flavour of local culture.

On Wednesday, Silmet welcomed delegates to a tour of the company's facility located in Sillamäe. The plant tour group then met up with the accompanying persons for a mediaeval banquet lunch in Rakvere castle.

The accompanying persons enjoyed a three-day sightseeing programme. They explored the historic city of Tallinn and its surroundings, practised their skills at making chocolate truffles then discovered the oldest and largest national park in Estonia, visiting the Sagadi manor, its forestry museum and Rakvere castle.

General Assembly

Four companies were elected as new members of the association. Their names and contact details are printed in the last section of this Bulletin, under 'Member company news'.

Mr Richard Burt was elected as President of the T.I.C. for the coming year, succeeding Mr José Isildo de Vargas. Mr Alexandr Gagarin and Dr Werner Lohwasser were elected to the Executive Committee. Mr John Crawley, Mr José Isildo de Vargas, Mr Alan Ewart, Mr He Jilin, Mr William Millman, Dr Karlheinz Reichert, Mr Itamar Resende, Mr Lawrence Stryker and Mr Barry Valder were re-elected to a further term of office. Mr David Reynolds resigned from the Committee.

The Artisanal & Small Scale Mining Policy developed by the Working Group on Tantalum and Niobium Mining was ratified.

Fifty-first General Assembly

The Fifty-first General Assembly is scheduled to take place on October 3rd to 6th 2010, in Lake Tahoe, Nevada, U.S.A., and will include a plant tour to Niotan Inc.
Call for papers: please submit your proposals for papers for the technical sessions, before March 31st 2010.

T.I.C. STATISTICS AND TRANSPORT PROJECT

This article is taken from the paper given by Mr Ulric Schwela, Technical Promotion Officer of the T.I.C., on October 20th 2009, as part of the Fiftieth General Assembly held in Tallinn, Estonia.

STATISTICS

COLLECTION METHOD

Statistics are collected to show the industry the main trends in tantalum and niobium production and consumption. They are considered to cover the vast majority of material in the industry. They only contain data from T.I.C. members, not outside companies. For reasons of confidentiality the T.I.C. may not verify the data reported and has to rely on the reports being correct, with only the independent collector SFC Group reviewing reports for obvious errors. No figures can be estimated or added in for any reason. With co-operation from all the members the statistics will be the best possible.
Collection requests are issued quarterly, to facilitate a routine and timely response; results are then circulated as soon as available. The confidentiality of the data is protected as each company reports its data directly to SFC Group; this company consolidates the data for each category before releasing a report to the T.I.C.

STATISTICS OVERVIEW

The statistics collected from T.I.C. member companies over the past year are reviewed in comparison with the statistics for the previous six years.
Between 2003 and 2008 the T.I.C. only reported results for the two half-year periods January-June (H1) and July-December (H2), except for capacitor producers' receipts where figures were reported quarterly. Since 2009, the T.I.C. reports all figures quarterly. However, for comparability with previous years, the figures presented for this year are still shown as a six-month period (2009 H1).

TANTALUM

PRIMARY PRODUCTION

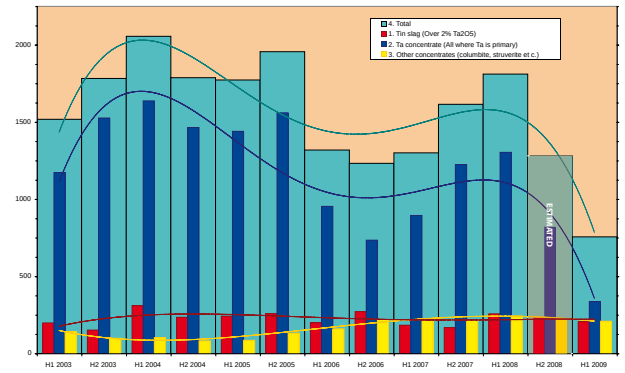

Figure 1: Tantalum primary production ('000 lb Ta_2O_5)

One of the companies that must report its figures before the results can be released failed to do so for the fourth quarter of 2008, hence no data is available for 2008 H2. The value shown in the graphs for 2008 H2 is an estimate. It has been assumed that the figures for that period lie half-way between 2008 H1 and 2009 H1. This assumption is believed to be conservative given that production cut-backs only began in the last month of that six-month period.

For the past year attention has been turned towards the economic downturn. At the time of the previous General Assembly, the mood was still overtly buoyant and the statistics looked rosy, giving little cause for concern. A year later the numbers tell a different story: while tin slag and 'other' concentrates have remained stable, the production of tantalum concentrates has plummeted to less than a third of the average production level for 2003-2008. Tantalum concentrates currently constitute about 45% of the total tantalum primary production, the balance taken up equally by tin slag and other concentrates.

In December 2008 Talison announced that tantalum production was going to cease at the Wodgina mine, soon followed by news of the Tanco mine in Canada and Noventa's Marropino mine in Mozambique halting operations too. Talison's Greenbushes mine had been put on care and maintenance in 2006, causing the drop in production which was until recently taken up by other producers.

Annualised total primary production is down an estimated (due to 2008 H2 data) 47% on the same period five years earlier. Tantalum concentrates provided on average 74% (fluctuating between 60% and 82%) of the total production during 2004-2008 and are now down to 45% of the total.

PROCESSORS' RECEIPTS

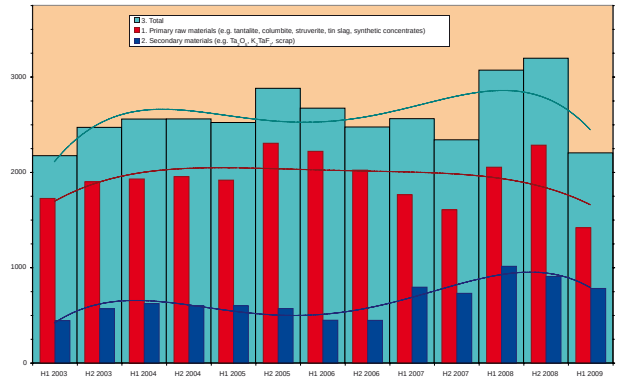

Figure 2: Tantalum processors' receipts ('000 lb Ta_2O_5)

Processors' receipts curiously rose to a seven-year peak in 2008 H2, just as the economic problems began to impinge on this industry. This could be attributed to the delay from the time orders are placed to them being delivered to processors. In 2009 H1 receipts dropped by a third.

Primary raw materials have averaged 75% of the total during 2003-2008 but have now dipped slightly to 65% of the total. Although the secondary materials have increased their proportion, they too have dropped a little and hold at 2007 levels, indicating a more stable demand in this area.

At the beginning of 2008 the figures indicated that the supply deficit of 2006 was restored, however production then dropped in 2009 to create an even greater apparent deficit. The ratio of production to receipts is to some extent cyclical due to the lag between production appearing in the statistics and the receipts appearing later. Also TPP '4. Total' does not include synthetic concentrates whereas TPR '1. Primary Raw Materials'

does include them so processors' receipts will often be greater, therefore this deficit should not cause undue alarm.

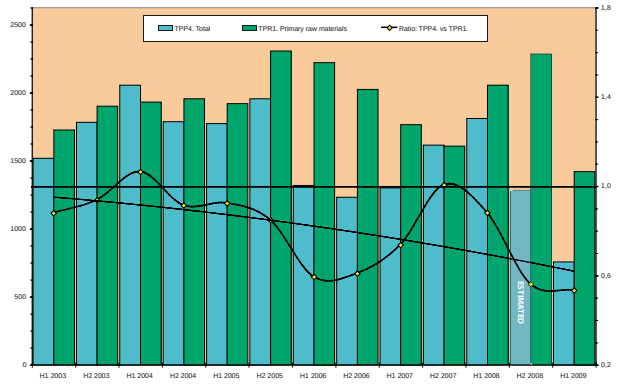

Figure 3: Tantalum total primary production versus processors' receipts of primary raw materials ('000 lb Ta_2O_5)

Nevertheless the scale of the deficit can not be sustained in the long term even should processors hold significant raw material stocks, primary production and processors' receipts have to come together again. The ratio has averaged 0.81 during 2004-2008 (varying from 0.56 to 1.06) but production only matched 53% of receipts for 2009 H1.

PROCESSORS' SHIPMENTS

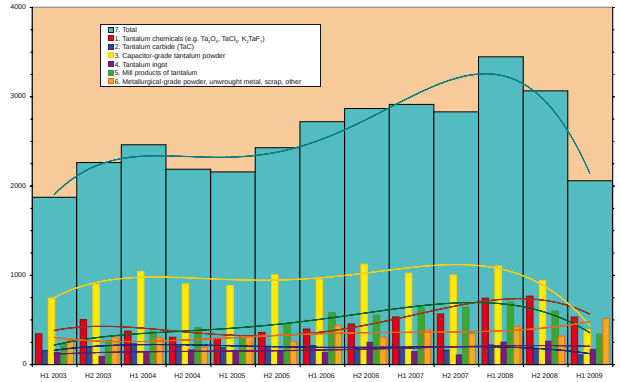

Figure 4: Tantalum processors' shipments ('000 lb Ta)

Last year there was good news in that processor shipments had reached an all time high in 2008 H1. However, the figure dropped by 11% in 2008 H2 followed by a 33% drop in 2009 H1. Current total shipments are still comparable to 2003 although the composition has changed significantly since then, notably with capacitor-grade tantalum powder dropping from 40% to 19% of total shipments. Tantalum chemicals are now the largest component of processor shipments (27%) although this may partly be due to the current unsettled economic conditions.

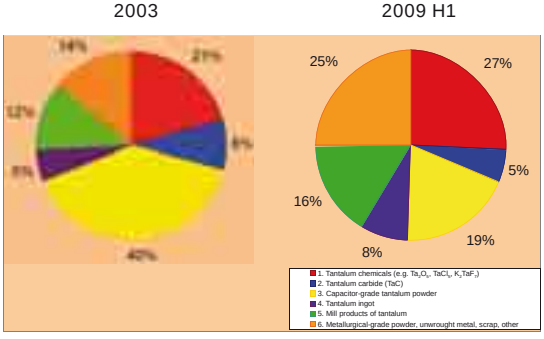

Figure 5: Tantalum processors' shipments in 2003 and 2009 H1

The quarterly figures for 2009 also show that all but the smallest category have risen from Q1 to Q2, recovering by varying degrees from 27% to 68%.

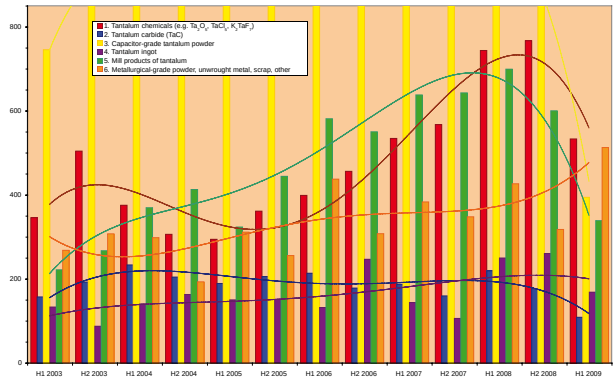

Figure 6: Tantalum processors' shipments – different scale ('000 lb Ta)

That the capacitor-grade powder shipments are no longer the preponderant tantalum product can be seen in the above graph, as capacitor powder is now of the same order of magnitude as the other products and no longer off the scale.

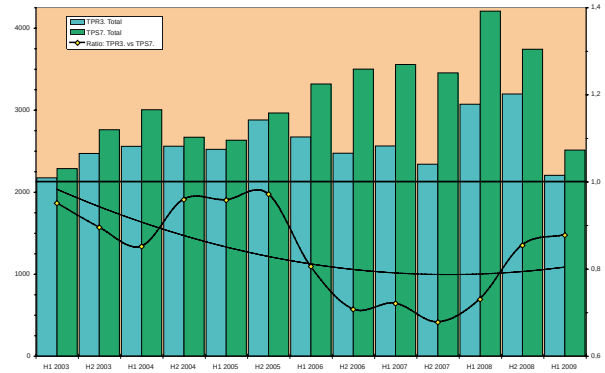

Figure 7: Tantalum processors' receipts versus processors' shipments ('000 lb Ta_2O_5)

Processor shipments continue to exceed receipts as they have done since 2003. The deficit in receipts was particularly marked in 2006 due to the changes to the Sons of Gwalia contracts and the closure of the Greenbushes mine coinciding with an increase in processor shipments. Over the 2003-2008 period, 31.000.000 lb of Ta_2O_5 have been received compared to 38.000.000 lb Ta_2O_5 shipped, confirming that stocks have been available and must necessarily have been put to use.

CAPACITOR PRODUCERS' RECEIPTS

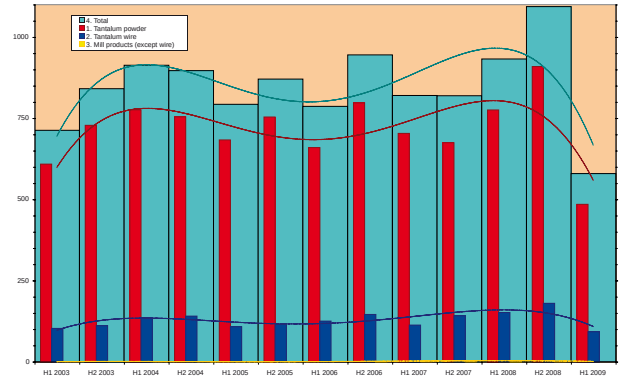

Figure 8: Tantalum capacitor producers' receipts ('000 lb Ta)

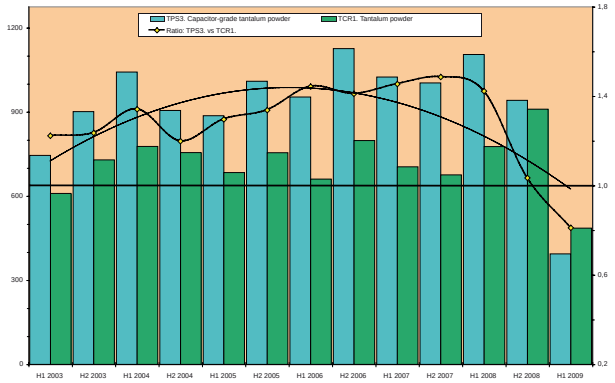

Figure 9: Tantalum processors' shipments of capacitor-grade powder versus capacitor producers' receipts of tantalum powder ('000 lb Ta)

There has been a major drop for 2009 H1 of nearly 50% versus the preceding figures in 2008 H2. Powder receipts for 2009 H1 exceed shipments, bucking the trend which had seen a surplus of powder shipments grow steadily to exceed receipts by over 40%.

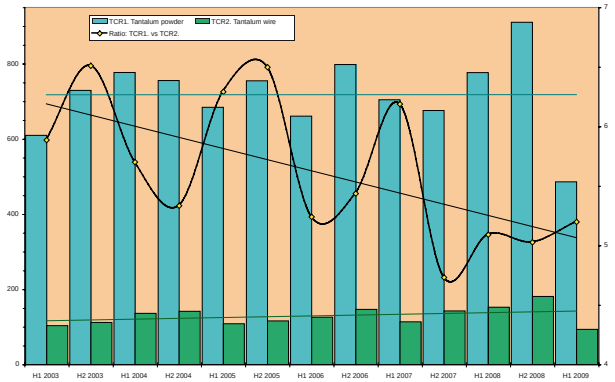

Figure 10: Tantalum capacitor producers' receipts: powder versus wire ('000 lb Ta)

Previously the capacitor producers' receipts for both powder and wire were increasing, more so for wire thus narrowing the gap and decreasing the powder/wire ratio in line with the diminishing capacitor form factor. While the ratio trend remains the same, the near-halving of powder receipts in 2009 H1 has led to a zero-growth trend-line for powder receipts over the past six years.

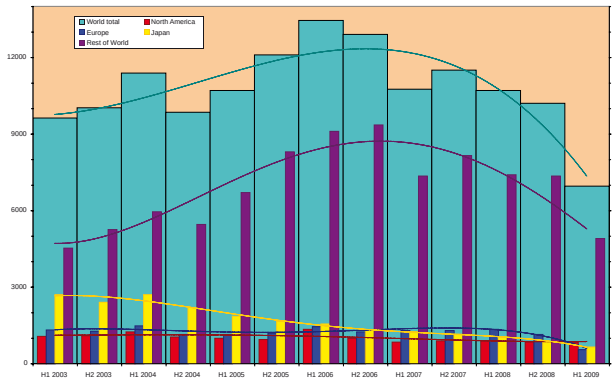

Figure 11: Tantalum capacitor consumption (estimated), by world region (millions of units)

The drop in capacitor consumption observed for 2008 H1 nearly held steady through 2008 H2, however 2009 H1 shows a major drop and particularly for Europe where a drop of more than 50% is observed.

NIOBIUM

PRIMARY PRODUCTION

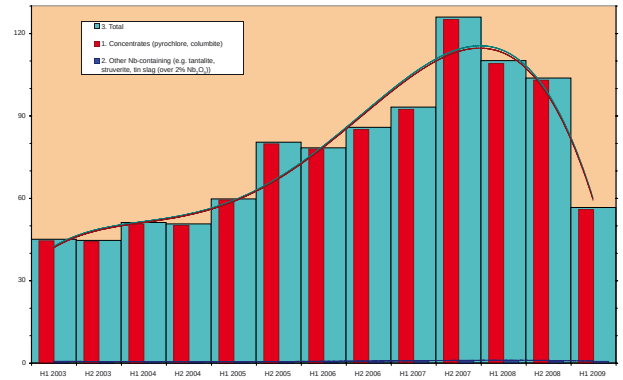

Figure 12: Niobium primary production ('000 000 lb Nb_2O_5)

The niobium industry was affected by the economic slow-down earlier than the tantalum industry: production started dipping after a peak in 2007 H2, although for 2008 the decline was moderate, then production halved in 2009 H1. The expansion plans announced by the major producer CBMM in 2007 and 2008 had to be put on hold until demand recovered.

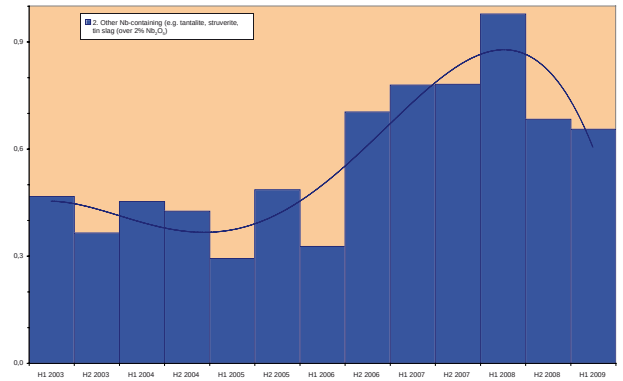

Figure 13: Niobium primary production from tantalite, struverite, tin slag (not including pyrochlore and columbite) ('000 000 lb Nb_2O_5)

As pyrochlore production has been scaled back, the figures indicate that other niobium-containing materials have taken a slightly greater share of the supply, surpassing the symbolic 1% mark for the first time in over seven years.

PROCESSORS' SHIPMENTS

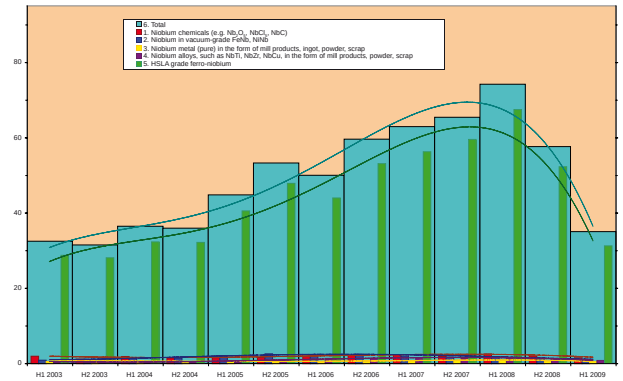

Figure 14: Niobium processors' shipments ('000 000 lb Nb)

Niobium processor shipments peaked in 2008 H1, mainly due to HSLA FeNb whose proportion had increased to 91% of total niobium

shipments. Although shipments dropped steadily over the following year, HSLA FeNb held its preeminent share which is now 89%.

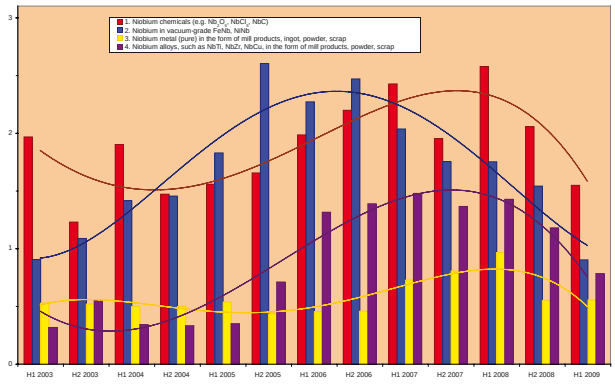

Figure 15: Niobium processors' shipments other than HSLA-grade ferro-niobium ('000 000 lb Nb)

Removing HSLA FeNb from the picture we see that the next biggest category is niobium chemicals, with demand remaining strong in the face of the down-turn. Unlike tantalum, the landscape of niobium processor shipments has not changed markedly since 2003. Only niobium alloys (NbTi, NbZr, NbCu) have slightly increased their share of shipments (back in 2006).

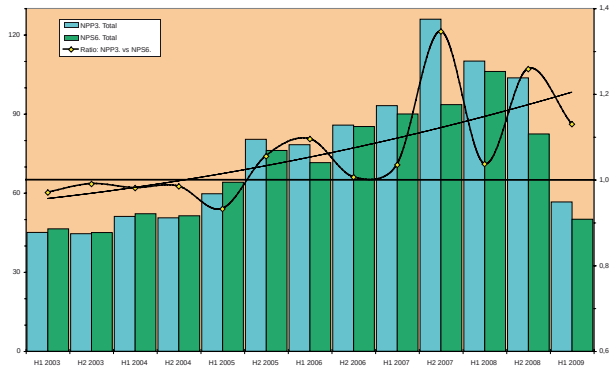

Figure 16: Niobium primary production versus processors' shipments ('000 000 lb Nb_2O_5)

During 2003-2005 there was a small deficit in supply which was more than compensated by the major expansion in production that followed. This production expansion overshot expectations and resulted in a 35% oversupply in 2007 H2 after which production was scaled back. Just as demand rose in 2008 H1 to meet supply, the change in the economy sent demand plummeting and it is remarkable that production was able to adjust quickly to these challenging conditions, resulting in supply remaining within 5-25% above demand.

STATISTICS CONCLUSION

The closure during the past year of three major mines producing tantalum concentrates has reduced the production level to approximately a third of that of the previous year. Although processors' receipts have dropped to two thirds of the previous year's level, the tantalum production is currently barely more than half the tantalum receipts. Tantalum processors' shipments have similarly dropped by a third, however there are signs of recovery from 2009 Q1 to Q2. Capacitor producers' receipts are down to just over half the level of the year before although also here there are signs of recovery.

Niobium primary production has been cut back in response to demand and is just over half that of last year. Niobium processors' shipments are similarly reduced by a third, mainly due to a big drop in HSLA FeNb output; other niobium processor categories are faring better and there are cautious signs of recovery from 2009 Q1 to Q2.

TRANSPORT PROJECT

A radioactive materials transport problem first manifested itself for the tantalum industry around 2002 and was the original impetus for the formation of the T.I.C. Transport Committee. The efforts to resolve this problem follow three avenues:

- Long-Term: working to alleviate the causes by ensuring the regulations are appropriate to the risk posed by tantalum raw materials
- Medium-Term: identifying and addressing the way in which the regulations indirectly result in delays and denials of shipment
- Short-Term: alleviating the symptoms of delay and denial by helping T.I.C. members directly

The Transport Committee has chiefly worked by e-mail and conference calls, plus a committee meeting once a year in combination with the General Assembly, the first committee meeting being in Philadelphia in 2004. Member companies are always welcome to join the Transport Committee in order to share their experience and provide input on future activity.

Given the transport difficulties there is the possibility that some companies may consider getting around this by not transporting in accordance with regulations. Clearly this would be a short-sighted policy which could damage the industry's reputation and the T.I.C. strongly discourages members from considering any action that is not in accordance with regulations. All members should strive to operate transparently and in open dialogue with the carriers and authorities.

LONG-TERM WORK: TRANSPORT REGULATIONS

The International Atomic Energy Agency (IAEA) is the United Nations (UN) agency which has a mandate 'to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world.' Included in this mandate is the authorisation 'To establish or adopt, ... standards of safety for protection of health and minimization of danger to life and property (including such standards for labour conditions)'. This in time led the IAEA being tasked to draft recommendations on radioactive material transport regulations, regulations which first appeared in 1961 and have since undergone continual review to keep them up to date. The latest edition of the regulations (TS-R-1) was published in 2009 and can be downloaded for free.

The aims of the T.I.C. in this long-term work have been to:

i. demonstrate the safety of Class 7 tantalum raw materials transported in accordance with the regulations;
ii. share the transport study findings in an appropriate scientific environment;
iii. encourage the amendment of the current transport exemption value from 10 Bq/g to a higher value more appropriate to the risk posed by these materials.

The first two points have been achieved, leaving the third and most important point to be achieved.

T.I.C. Study on Tantalum Transport Safety

In 2004 the T.I.C. commissioned a study into the transport of tantalum raw materials (specifically tantalite and tin slag) which was completed in April 2007. The main objectives of this study were to determine the radiological characteristics of these materials and to evaluate the potential radiological exposures associated with normal transport and in the event of an accidental spill. The study was carried out by SENES Consultants Limited, with support from a number of T.I.C. member companies for the analysis and gamma radiation surveys. The radiological dose assessments described in the report provide assurance to the tantalum industry and to its shippers that the doses arising from the transport of tantalum raw materials are low and well within international norms for both transport workers and members of the public. Further details of this study can be obtained from the T.I.C.

IAEA NORM CRP

Coordinated Research Programmes (CRP) are a way by which the IAEA stimulates research in selected fields to contribute to the peaceful uses of nuclear energy and the results are made freely available.

In 2005 a recommendation was made within the IAEA to examine the adequacy of the safety standards pertaining to the transport of Naturally Occurring Radioactive Material (NORM), which led to the creation of the CRP on the 'Appropriate Level of Regulatory Control for the Safe Transport of NORM'. Proposals for studies were submitted by nine countries: Brazil, Canada, France, Germany, Iran, Israel, Romania, the United Kingdom and the USA, of which the Canadian study was actually the T.I.C. study mentioned above. The T.I.C. could not submit the study independently and the Canadian authorities kindly agreed to submit it on the T.I.C.'s behalf.

The CRP held a preparatory meeting in November 2006 to examine the general background and each participant's proposal for research. Subsequent meetings were held in April 2007, February 2008 and a final one in November 2009. Consensus was reached on a number of general conclusions including defence of the existing x10 factor for the exemption level. These conclusions will appear in a draft report to be made available by the end of January 2010.
The CRP's conclusions will unfortunately be ready after the submission period for changes for the next issue of TS-R-1, to be published in 2011, so they will be included in the following issue, which would be in 2013 at the earliest.

Conferences: spreading the word

Radioactive Material Transport, Manchester, May 2009

This conference included a session on transport of raw materials and the problems of delay and denial of shipment. The T.I.C. presented a summary of the IAEA NORM CRP work with emphasis on the T.I.C. study and its conclusions.

EAN-NORM, Dresden, November 2009

This was the second workshop of the European ALARA Network on NORM, covering all aspects of handling, processing, transport and waste disposal. The T.I.C. presented a paper on NORM transport in general and tantalum raw materials in particular.

Future events

The T.I.C. is considering presenting a paper at the NORM Processing Conference, to be held in Marrakech in March 2010, at the Radiation Protection Conference, to be held in Nairobi in September 2010, and at PATRAM, scheduled to take place in October 2010, in London.

IAEA TRANSSC: deciding on the transport regulations

TRANSSC is a standing body of the IAEA, composed of senior experts in transport of radioactive material, which advises the Deputy Director General on the overall programme for the development, review and revision of standards relating to safety of transport of radioactive material. It meets at least twice a year and is attended by approximately 150 delegates from member states and international organisations.

This is the most important forum for discussing and deciding the future shape and content of the Class 7 transport regulations. The T.I.C. has been invited to participate at several TRANSSC meetings to date and has made valuable contributions to the discussions on behalf of those wishing to transport Class 7 NORM and hence tantalum and niobium raw materials in particular. Participation is important for two reasons. On the one hand not to increase the regulatory burden further. All new proposals which are made by TRANSSC participants with the intent of further improving the safety of the regulations must be assessed. Such proposals can place additional burdens on NORM transport, sometimes unintentionally; it is important to ensure the burdens are balanced against the anticipated safety gain. Unless proposals are thoroughly justified they should not be applied. On the other hand the T.I.C. aims to ease the existing regulatory burden where it can demonstrate that there is no detriment to the transport safety. This goes hand in hand with the NORM CRP work and applying its findings to influence future editions of the transport regulations.

The T.I.C. attended the two meetings of TRANSSC held in June and October 2009. The next two meetings are scheduled for June and October 2010.

MEDIUM-TERM WORK: DELAYS AND DENIALS OF SHIPMENT

ISC-DOS

ISC-DOS stands for International Steering Committee on the Denial of Shipment of Radioactive Material. The problem with the perception of Class 7 transport by carriers and some authorities continues to exist, the burden of international and/or local regulatory requirements is perceived as being more than the transport is worth, resulting in delay or denial of shipment of the Class 7 materials. While there are indications that the carriers have relaxed somewhat in the current economic climate due to unfilled cargo capacity, some regulators are tightening controls on Class 7 transport.

Reports of transport difficulties have built up over time, demonstrating how the ability to cost-effectively transport radioactive materials is affected. Naturally the first reports were anecdotal yet they came from all sectors of industry involved in radioactive materials transport. The IAEA was prompted to take action to resolve these problems, resulting in the setting up of the ISC-DOS in November 2006 composed of a number of UN organisations, IAEA member states and industry associations, tasked with developing a co-ordinated international work plan.

The ISC-DOS has helped set up regional networks and a denial reports database. The ISC-DOS has also requested that each IAEA member state assign a competent person to act as a National Focal Point (NFP) for all issues related to DOS. To date 65 states have designated NFPs.

Thanks to initiatives by ISC-DOS members, a dedicated website is being established, the ISC-DOS is studying how a Communication Campaign might be applied, a free e-learning package for Class 7 transport is nearing completion and various forms of transport maps have been prepared.

In order to better understand the detail of this problem and be able to tackle the key issues causing delay and denial, factual information is required. Shared among T.I.C. members is a wealth of experience in delays and denials: it can not be understated how important it is for the members to provide accurate and detailed reports of their experience in order that a fuller picture can emerge.

The ISC-DOS will however not be allowed by the IAEA to run indefinitely as a drain on its resources. It has a mandate to resolve this problem and within a realistic time frame. If industry, including T.I.C. members, does not contribute to resolving this, then the ISC-DOS will ultimately be disbanded. The ISC-DOS is a unique vehicle and opportunity for the T.I.C. members to help themselves; if insufficient information is received to resolve delay/denial, the industry will only have itself to blame.

Further reading can be done at:
http://www-ns.iaea.org/tech-areas/radiation-safety/denial-of-shipment.htm

The T.I.C. attended the fourth ISC-DOS meeting in January 2009. The next meeting is scheduled for February 2010.

Regional Networks

The ISC-DOS has established five regional networks: Africa (English-speaking), Africa (French-speaking), Asia, Mediterranean and South America. A sixth network (Europe) was proposed, but at its first meeting in June 2009 it was decided that the European and Mediterranean networks should be joined together as the benefits would outweigh the problems arising from such a large group. The South American network was the first to be established in July 2007 and has developed good connections. For example, it succeeded in opening the port of Santos in Brazil to Class 7 transport through dialogue. These networks are in place to facilitate the communication among interested parties and thus speed up the resolution of problems. Each network is led by one or more coordinators who report to the main ISC-DOS meetings and promote an agenda suited to local requirements.

Denial Reports Database

The ISC-DOS recognises that there is no accurate measure of the nature and extent of the problem. The committee's work relies on the commitment of states, international organisations and associations to take action, e.g. encouraging the reporting of instances of delay and denial. To this end the International Maritime Organisation led the way in March 2007 with the creation of a database for collecting information on delay and denial of shipment; this was later adopted by the committee. As of September 2009 it has recorded over 140 reports of which the T.I.C. has contributed nearly 60. A further 50 reports from others are waiting to be added. Nevertheless it is believed that the true extent of denial is still hidden. This is partly because industry continues to find sub-optimal, costly and time consuming solutions to get radioactive materials from one destination to another.

A big thank you is due to all those from the T.I.C. who have submitted information to date, please continue to do so! It is important that more reports for tantalum raw materials are received in order that the problems particular to our industry are taken seriously. Members should report all instances in order that a suitable body of evidence can be obtained. The following are examples of situations which merit reporting:

- refusal by carrier to accept goods for carriage;
- requirement for significant additional and onerous administration, including the need to produce any certificates which are not believed to be necessary, relevant or appropriate;
- the quoting of exorbitant prices for carriage;
- additional requirements imposed by ports of call or destination port, whether prior to booking carriage or during voyage;
- unexpected demands by Customs or equivalent authorities en route, leading to short or long delays, impounding or fines;
- requirements particular to a port or local authority, or unusual national requirements which are not common to other countries or international regulations, e.g. licences, permits;
- any other external condition which has a significant impact on the cost, route, carrier availability or effort required to arrange carriage;
- where an alternative routing has had to be found and utilised at significant additional cost or administration.

In September, the NFPs were finally given access to the denials database in order that they can start to analyse and resolve the problems listed. The NFPs have been warned that some information may be commercially sensitive and have been advised to contact the reporting organisation to check what information may be shared with third parties.

Communication Campaign

This campaign was an initiative of the World Nuclear Association (WNA) to investigate how delay and denial might be cured by improving the image of Class 7 transport. The campaign development was handed to a communications consultancy called Tamarisk which started work in 2007 on material for a campaign to inform and, hopefully, change the minds of people who have an influence on shipment of Class 7. The campaign was initially funded by the WNA and in January 2009 the IAEA promised some further funding although Tamarisk has essentially been working pro bono, in the hope of this campaign getting off the ground and receiving more stable funding.

At the January 2009 ISC-DOS meeting Tamarisk gave a comprehensive presentation of the communication work carried out. One of the core messages was 'communication is not just about transmission but also reception'. It recognised that a 'top-down' approach was unlikely to work, instead a package of supporting material for use in a targeted manner ('bottom-up') was being developed. This package could then be employed by separate industries/companies to tackle problem areas particular to them. As part of such a future package were short videos which challenged the usual attitudes towards radioactive materials, which could prove useful in talks with individual transport companies. Funding for using the communications package would be provided by the company wishing to employ it; a question remains over how to handle shared problem areas e.g. Hong Kong.

In September 2009 the IAEA decided to recruit an independent communication consultant to produce a complete toolkit as

proposed by Tamarisk, using some of the Tamarisk material but not being constrained by it. The IAEA anticipates problems with transport through Shanghai in the coming year and intends to focus a campaign on that port. The toolkit will receive comment and input from all the affected industries: medical isotope, uranium, tantalum and lighting industries. The T.I.C. continues to work in a correspondence group with other industry associations in order to identify areas of synergy.

SHORT-TERM WORK: HELP T.I.C. MEMBERS INDIVIDUALLY

Where a problem requires a quick solution there are several options:

- contact the Competent Authority in your country or the country where you have a problem; a list can be found at: http://www-ns.iaea.org/downloads/rw/radiation-safety/competent-authorities-list.pdf
- if the above is not appropriate, contact the National Focal Point instead; a list can be found at: http://www-ns.iaea.org/downloads/rw/transport-safety/denial-shipments/national-focal-points-list.doc
- advise the T.I.C. of the issue so that we may contact the relevant authority on your behalf
- complete a Delay/Denial of Shipment Form and submit this to the T.I.C. for us to register and follow up on your behalf, or directly to the relevant authority.

The only way to obtain a solution is to have open dialogue between the interested parties (yourselves, the maritime carrier and the authorities) in order to discuss and resolve any special requirements.

WORKING GROUP ON TANTALUM AND NIOBIUM MINING - AN UPDATE

by Richard Burt

The Artisanal & Small Scale Mining Policy developed by the Working Group was ratified at the Fiftieth General Assembly in Tallinn. The Policy supports the recommendations of the report issued by the U.N. Panel of Experts in 2008, as well as a growing number of Non-Governmental Organisations (NGOs), that disengagement is not the answer, rather a comprehensive approach that requires Companies to work to a code of full, documented and audited traceability and transparency throughout the supply chain. The T.I.C. condemns any activities that have the effect of routing mineral revenues to U.N. sanctioned groups; the Policy therefore accepts the requirement to identify 'legitimate' mines, and the need to work with the host Governments to improve governance that will ensure artisanal mining can be performed in conditions of freedom, equality, safety and human dignity.

A set of Procedures to implement this has been developed, and a Pilot Programme based upon these will commence before the end of 2009, with an interim report to be completed by end March 2010. The Working Group reminds members that Companies each have an individual 'duty of care': the Procedures are the recommended tool to guide them through the due diligence process.

The Working Group has been actively interacting with other organisations. We continue to talk with the tin industry which is working along similar lines, to ensure that there is compatibility wherever practical. We are in discussions with various NGOs that might wish to partner us in our programme. One of our members is on the sub-group of the Electronics Industry's Supply Chain Initiative and three of the Working Group, along with several of our members, attended the November EICC Workshop held in Seattle, where the T.I.C. programme was presented. The President and Technical Promotion Officer along with several of our members have attended an OECD Consultation on due diligence in the mining sector in Paris this December.

The Working Group on Tantalum and Niobium Mining consists of William Millman (AVX), Isildo de Vargas (CBMM), Richard Burt (GraviTa), John Crawley (Niotan), Guo Hong (CNMC Ningxia Orient Group) and Karlheinz Reichert (H.C. Starck), as well as Emma Wickens (Secretary General) and Ulric Schwela (Technical Promotion Officer).

MEMBER COMPANY NEWS

Resignations

The following companies have resigned from membership since the last General Assembly:
Cabot Supermetals, Cabot Supermetals KK, Euromet, Metallo Chimique, Reading Alloys, Alex Stewart Assayers, Simmonds Metal Trading, Talison Minerals and Wasser LLC.

New members

Four companies were elected to membership by the Fiftieth General Assembly:

Crevier Minerals Inc

Address: La Tour CIBC, 31 ième étage, 1155 Boulevard Rene Levesque, Montreal, Quebec, H3B 3S6, Canada
Nominated delegate: Mr Serge Bureau
Tel.: +1 514 518 1912, Fax: +1 450 724 3581
e-mail: Crevierminerals@hotmail.com

Cronimet Central Africa AG

Address: Allmendstrasse 11, 6312 Steinhausen, Switzerland
Nominated delegate: Ms Candida Owens
Tel.: +41 41 748 51 34, Fax: +41 41 748 50 58
e-mail: candida.owens@btinternet.com
Web site: www.cronimet.com

GraviTa Inc

Address: PO Box 1441, Elora, Ontario, N0B 1S0, Canada
Nominated delegate: Mr Richard Burt
Tel.: +1 519 846 9725, Fax: +1 519 846 2125
e-mail: gravita@cogeco.ca

Refractory Metals Mining Co Ltd

Address: 1008A Shing Chuen Industrial Building, 25 Shing Wan Road, Tai Wai, Shatin, Hong Kong
Nominated delegate: Mr Christoph Huber
Tel.: +852 2601 0129, Fax: +852 2694 8782
e-mail: info@rmmc.com.hk

Changes in member contact details

Traxys

Traxys has announced new contact details, following the merger of Traxys Belgium and Traxys Europe.
Tel.: +352 459 999 321, Fax: +352 459 999 222
The delegate to the T.I.C. remains Mr Frédéric Delforge.