

**"Responding to Non-Technical Challenges
in the Uranium Mining Industry"**

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INTRODUCTION

[IF UNDER "COMPETITIVENESS IN THE MARKETPLACE"]

Canada's uranium mining industry -- currently centred in Saskatchewan -- is one of the most efficient and effective in the world. As a result, it is also one of the most competitive in the world.

The proof for this may be found in Canada's dominance among all uranium producing nations with respect to the primary production, or mining, of uranium as a feedstock for the nuclear power industry. Canada presently supplies nearly one-third of the western world's uranium, and is home to the two largest uranium producing complexes in the world today -- Key Lake and Rabbit Lake.

Canada's uranium mining industry enjoys a competitive advantage over those of other nations for many reasons. Key among these have been the exceptional grades and reserves of its major mines. That is, we have been blessed with projects of superior ore grade and reserves.

Key Lake, for example, has recorded an average grade of over 2% U_3O_8 over its nearly 15 years of production, and has provided more than 200 million pounds U_3O_8 to its owners -- Cameco and Uranerz -- and through them, to the market.

Rabbit Lake will have had an average grade of over 1% over its longer lifetime and will have produced approximately 180 million pounds U_3O_8 by the time mining is completed early in the next century.

Such grades are considered high as the world average at the time of their discovery was only 0.1% U_3O_8 .

To have mined these "high-grade" deposits successfully, the uranium mining industry has had to overcome a number of technical challenges. Open-pits had to be designed and lakes dewatered. Innovative underground mining methods and systems had to be developed. Detrimental components in the ore had to be removed. Radioactive tailings had to be contained and managed. Worker exposures to radiation sources had to be minimized. The technical challenges have largely been overcome, as they have been elsewhere in the nuclear industry.

However, the successful mining of the deposits at Key Lake and Rabbit Lake has also had to overcome a number of non-technical challenges. Workers and materials had to be transported over large distances and difficult terrain into northern Saskatchewan. Difficult winters had to be made bearable. The mines and mills had to be built in areas where there had been no settlements not speaking of any prior industrial development. A workforce had to be trained, educated and transported to site.

It is largely on this last point that I wish to focus my comments. The uranium mining

industry, like others in the nuclear industry, needs a workforce that is capable of handling the demands of working in a modern, technically advanced work environment.

The challenge that the uranium mining industry has faced, and continues to face, is that it *must continuously create the workforce it requires* while dealing with daunting demographics, rising expectations and evolving political demands.

The Challenges of Daunting Demographics

The Saskatchewan uranium mining industry makes every effort to first hire, train and promote people who are "residents of Saskatchewan's north." In many ways, the northern area of Saskatchewan is unique from other regions of the province:

- it is a vast and sparsely populated area covering half the province but with only 3% of its population (just some 35,000 people);
- many of its residents are geographically and economically isolated in approximately 50 small communities;
- it has a very young population as almost 50% of its residents are under the age of 20;
- it has a growing population while the remainder of the province is generally static;
- some 85% of its residents identify themselves as being of aboriginal ancestry, and it is home to 25% of all aboriginal people in Saskatchewan;
- it has a high incidence of poverty and dependence on government assistance (25% or nearly twice the provincial level);
- a large percentage of its residents are functionally illiterate (36% or more than twice the provincial level);
- it has a very high unemployment rate -- on average more than three times the provincial rate;
- three-quarters of all male workers are employed in part-time or seasonal jobs and earn only 53% of their southern counterparts; and
- mining, forestry, fishing and trapping provide a disproportionate percentage of employment opportunities.

What this means for the uranium mining industry is that at a time when it is seeking nearly 700 new employees it is:

- drawing from a potential labour force that is very young and not sufficiently skilled;
- attempting to hire from a population that has less academic education, fewer trades and industrial skills, and a smaller corps of university-educated professionals compared to the rest of the province; and
- it is competing for workers in an employment market more restricted in size and range of opportunities than the province as a whole at a time when many of the jobs it offers require a high skill and/or academic level.

Adding to the challenge is the fact that with the rapidly increasing population, there is an increasing number of northern youth with high school diplomas, but unfortunately lacking in necessary science and mathematics prerequisites for further training and education in mine related fields.

Notwithstanding these challenges, northern people are becoming the permanent core of the workforce in our industry, and the needs of northern workforce are beginning to drive the types and amounts of training being undertaken in the north. Aboriginal people and institutions in particular are playing a much larger role in education, training, social programs and economic development in Saskatchewan's north.

The Challenges of Rising Expectations

Saskatchewan's uranium mining industry has always battled expectations.

Modern, high-grade uranium mines such as Key Lake were supposed to open in the early 1980s with 50% northern employees. Uranium was also supposed to remain above \$40 US per pound. Neither happened.

While the price of uranium has not met these initial expectations over the years, the uranium mining industry largely has, as throughout 1996, northerners averaged just under 50% (49%) of the northern mine workforce. In total, more than 1,000 northerners work at mine sites, double the numbers of only four years ago. The mines at which my company is involved, contributed over half of these employees to the total. Cameco, our operator, should be commended for their success in this regard.

Such success, however, has contributed to raising expectations in the north as to the ability of the uranium mining industry to continue to provide an ever increasing number of employment opportunities to northerners.

In 1993, for example, recommendations from a federal-provincial environmental assessment review panel called for new mines to open with 70% northern employment and to increase the percentage to 80 within three years of operation. Such

employment conditions were also to apply to the industry's contractors and sub-contractors.

And while we are to some degree victims of our own success, we are also victims of both the increasing northern population and the increasing participation of aboriginal governments and institutions in the economy.

More and more northern residents are entering the workforce and looking for work, and more and more of them are putting pressures on the aboriginal governments to find them that work. The uranium mining industry, one of the largest and perceived to be richest employer in the north, is being called upon to do more by those who see the high levels of poverty, welfare dependency, and unemployment in northern communities.

In the past, new mines meant new jobs, and good jobs. Today, however, most of the new mines in our industry will either be replacing existing mines which are nearing the end of the productive lives (such as McArthur River and Key Lake) or extending the lives of current mines (such as the Dominique-Janine Extension at Cluff Lake). The mines are big in a sense of uranium production but small in terms of tonnage and require only a small number of employees. As such, the new mines are mostly dramatically increasing the duration of employment opportunities rather than creating new, permanent jobs.

The new mines of today are also representing a shift back to underground mining operations. Few people in the general population are prepared to work underground, and it is believed that proportionally even fewer aboriginal people have the experience or network necessary to pursue opportunities to work underground. Couple this with the introduction of high-tech remote mining methods in new mines such as McArthur River and the reality of our industry's workforce requirements are not meshing at all with heightened northern expectations for new jobs.

There are also high expectations around our industry as we are good employers with respect to wages, particularly when compared to the other natural resource based industries in the north.

Average annual incomes for trappers are often less than \$1,500, while those for fishermen are about \$6,000. On the other end of the scale are jobs in the mining industry where annual incomes on average exceed \$40,000 -- four time greater than the average annual income of a worker in the tourism industry.

The uranium mining industry has attempted to "manage" northerners' expectations by participating with federal, provincial and aboriginal governments and post-secondary educational institutions in an unique effort to meet labour market demand. Beginning in

1993, a long-term training strategy, the Multi-Party Training Plan, was implemented to address training and employment needs for the new and proposed mine developments.

This 5 year, \$10.5 million training-for-employment plan is now in its fourth year, and to date has awarded 382 certificates and seen 280 trainees employed in the workforce (nearly 75%).

At the end of the third year, 94% of all enrollments have been students of aboriginal ancestry. The plan provides courses in technical programs, skills training, apprenticeships and adult basic education, and 77% of successful trainees (232) have found full-time employment at northern mine sites.

Mine site jobs have included supervisors (12), technicians (37), trades people (35), mill operators (53), equipment operators (50), truckers (12), miners (2), and labourers (31).

Such efforts have increased the level of northern representation in supervisory and professional/technical positions by over 50% since 1990.

The Challenges of Evolving Political Demands

One may think that with this record, the uranium mining industry would be basking in the glow of its success in hiring, training and promoting employees from northern Saskatchewan.

If you did, you would be partially correct.

Some in our industry have received recognition for their efforts in creating employment opportunities in northern Saskatchewan. The Multi-Party Training Plan is being heralded in more and more quarters as a model for building skills and developing the workforce Saskatchewan needs for the start of the new century. Some even grudgingly admit that a \$40,000/year job is a good job.

Some have even started to accept that hitting the target of 50% northern and aboriginal employment in our industry was the result of a tremendous effort, and that doing better will be more difficult. Even the federal-provincial panel reviewing McArthur River recognized this to some degree and lowered their northern employment targets to a 1% increase per year until we reach 67% northern content.

At the same time however, we are being asked to get tougher on who may be considered a "northerner," to fire those who may move to the south to gain access to better schools for their children, and to increase the wages for all those working on the mine site, such as kitchen helpers or security guards, to match those earned by miners.

We are also being asked to pay a portion of our revenues to aboriginal peoples in recognition of their "traditional rights" to the land under which are mines are found.

These are not rights associated with land ownership, or even treaty rights of land tenure, but are nonetheless meant to be respected and compensated for by someone prior to new mines, such as McArthur River, being built.

Fortunately for the industry, there is recognition by the federal-provincial environmental assessment review panel and both levels of government that the issue of "revenue sharing" needs to be resolved in a political forum rather than as part of the approval and development process of individual mines.

Hopefully, there is also a recognition that uranium industry in Saskatchewan is paying the highest royalties and taxes under any regime in the world.

How the Industry Has Responded to the Challenges

A more in-depth presentation of the ongoing revenue-sharing debate affecting our industry would consume more time than the 20 minutes I have been given to speak. I would like therefore to close my paper with a summary of the innovative ways and means our industry has responded to the "non-technical" or socio-economic challenges of the last few years. Included among these are:

- the fly-in/fly-out work schedule, which was largely pioneered in northern Saskatchewan, which allows northern, aboriginal employees to maintain their residence in their home community and still practice their traditional lifestyle, if desired, while also providing the opportunity to earn a good living working in the mine;
- the application of vacation privileges in combination with weeks off to further cater to traditional but seasonal activities of our aboriginal employees, such as hunting, fishing and trapping;
- the Multi-Party Training Plan, of course, in which all participants go through five phases ending with full-time, permanent employment (assessment, pre-employment preparation, skills training, job training and employment);
- the development of northern, aboriginal contractors through the awarding of progressively larger and more complicated contracts, by waving certain contract requirements based on the character and past performance of the contractor, such as bonding, and by sizing contracts to levels appropriate to the skills and resources of northern contractors;
- contracting with regional aboriginal authorities for the provision of potential employees through screening and referral services;

- the proactive identification of northern businesses with the capabilities for providing goods and services to the minesites;
- awarding major contracts on criteria which include the ability of a primary contractor to subcontract to northern contractors, and in all contracts the percentage of northern business that will result;
- monitoring all contractors so as to ensure that they employ northern labour wherever possible;
- actively participating in committees whose mandates are to ensure that northern people have the opportunity to receive the education, training and access to employment which is required for them to pursue careers in the mining industry at all levels (the Mineral Sector Steering Committee, the Northern Labour Market Committee and the Northern Apprenticeship Committee);
- contributing to the upgrading of a major northern highway which serves several minesites and northern communities, and in so doing not only improving the quality of the road, but also creating additional work for northern road construction companies;
- the negotiation of collective agreement provisions which support company efforts at maximizing aboriginal employment at the minesite (eg. every second apprenticeship vacancy at Key Lake is to be awarded to an employee of aboriginal ancestry);
- the maintenance of a "Northern Affairs Office" in major northern communities to provide a readily accessible source of information on employment and contracting opportunities;
- the encouragement of "north-south", or aboriginal and non-aboriginal, joint venture companies to bid on mine related work (eg. Northern Resource Trucking, a successful joint venture originally between the La Ronge Indian Band and Trimac which has recently expanded its shareholder base to include other First Nation and Metis communities); and
- the careful and regular monitoring and reporting of northern recruitment, training, advancement and contracting efforts.

Conclusion

The modern uranium mining industry in Saskatchewan has been working with northerners, governments and educational institutions for nearly 20 years to bring about one of the highest levels of northern and aboriginal participation in an industrial

sector in the country.

It has accomplished this notwithstanding the challenges noted in this paper -- those arising out of the demographics of the region from which it makes all efforts to draw its workforce, the continuously rising expectations as to what can be delivered with respect to employment and business opportunities, and the at times difficult demands from evolving aboriginal political institutions.

This accomplishment comes out of a commitment in the industry that has often been set out from the very top of our organizations. Such a commitment has been, in my view, instrumental in driving the search for innovative ways and means to meet the targets, and provide meaningful employment and business opportunities for the now more than 1,000 northerners employed in our industry, 85% of whom are of Indian or Metis ancestry.

I started this presentation by saying that one of the primary reasons the Saskatchewan uranium mining industry is the dominant primary producer in the world is the grade of its deposits. Key Lake, Rabbit Lake and Cluff Lake are all considered "high" grade deposits and all have contributed to Canada's ranking as the number 1 producer of the uranium in the world. Even though these deposits are coming near the end of their productive lives, they will be ably replaced by a new generation of "ultra-high" grade deposits.

New projects such as McArthur River (average grade of 15% U_3O_8), Cigar Lake (average grade of 9% U_3O_8), McClean Lake (average grade of 3.5% U_3O_8) and Midwest (average grade of 4.5% U_3O_8) will do much to ensure that Canada remains the world's top producer for many years to come.

Without doubt, the grade and size of these new deposits will contribute to the competitiveness of our uranium mining industry. But, so too will our workforce. It is ultimately for this reason that our industry is prepared to find innovative ways to build a workforce out of a challenging environment. People make our mines work. People make our mines competitive. And, our people help us overcome the technical challenges our industry faces.

It remains worthwhile then, for our industry to respond to the non-technical challenges we face. After all, it is nice being number one.

Thank you.