

THE PROFESSIONAL



EDGE

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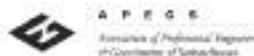
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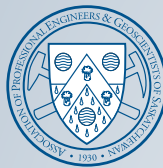
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President's Report



President Dwayne A. Gelowitz, P.Eng., FEC

Over the past couple of years, a few geoscience regulators across Canada have been promoting the merits of incidental practice agreements. These agreements would allow the unlicensed practice by geoscience practitioners beyond their home jurisdiction for limited time periods and for limited scopes of practice.

In April, APEGS Council considered whether unlicensed incidental practice, as being proposed by these geoscience regulators, was in the public interest or whether it enhanced public safety and environmental protection. Council concluded that it is not consistent with APEGS' statutory objectives nor is it in the public interest.

Council passed the following motion:

MOTION B: Cochran / Lockwood, that APEGS Council endorses the current regulatory framework of licensure of professional engineers and professional geoscientists in Canada and does not support the concept of unlicensed incidental practice as there is no evidence that it enhances safeguarding the public or protecting of the environment, or is in the public interest. **CARRIED UNANIMOUSLY.**

Our Council motion is clear in its responsibility to safeguard the public, the environment and the public interest.

APEGS' expectations are:

1. That every professional geoscientist who practices in Saskatchewan should be licensed in Saskatchewan.
2. That every regulator should license every professional geoscientist who practices in their jurisdiction.
3. Those Saskatchewan professional geoscientists who practice elsewhere in Canada should obtain a license in those jurisdictions.

On October 22, 2013, the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) and the Association of Professional Geoscientists of Ontario (APGO) announced the signing of an incidental practice agreement for geoscientists within their provinces. This bilateral agreement will be implemented as a two-year pilot program and will take effect January 1, 2014. APEGS views this agreement as a threat to public protection and the environment, and to self-regulation of the professions of engineering and geoscience.

The argument provided by these associations for incidental practice is that many of their geoscience members are highly mobile throughout the country and that registration in multiple jurisdictions is problematic from a financial and time perspective. With the Agreement on Internal Trade, if a member in good standing in one jurisdiction wishes to register in a second jurisdiction, the registration is automatic upon payment of fees and submittal of the application. This can be done very quickly in most jurisdictions and is not viewed by APEGS as an impediment to licensure.

Continued on page 6


There is also an issue of equity amongst all members registered within a given regulatory association. For associations that register both engineers and geoscientists, how can an incidental practice agreement be granted to geoscientist members and not be granted to engineering members? Many engineers practice across multiple jurisdictions just as geoscientists do. Also, members registered in only a single jurisdiction are financially subsidizing members registered in multiple jurisdictions as a result of incidental practice agreements.

Incidental practice agreements are considered by APEGS to be unlicensed practice and have the potential to cause confusion over which jurisdictions permit incidental practice and which do not. They would also require the home jurisdiction of the practitioner to provide investigation and discipline, if warranted, for actions occurring in the secondary jurisdiction. This would make it difficult for those registering a complaint to participate in

the process and may unduly extend the time for completion of the investigation. There is also an example nationally of where inter-jurisdictional investigation and enforcement did not yield a satisfactory outcome.

The bottom line is that Saskatchewan legislation and the objects of our association dictate that all engineers and geoscientists working within our province need to be licensed. APEGS will continue to advocate this position at the national level and will continue to oppose incidental practice agreements.

Dwayne A. Gelowitz, P.Eng., FEC
President



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CIVIL				
Foundation Design	03-0425-2268	Regina	Jan 29-31	21
Preventive Maintenance of Facilities	04-0213-2286	Winnipeg	Feb 24-25	14
Structural Engineering for Non-Structural Engineers	04-0334-2286	Regina	Mar 17-20	28
Infrastructure Asset Management: A Strategic Approach Toward Sustainability	04-0408-2286	Winnipeg	April 24-25	14
	04-0411-2286	Regina	April 28-29	14
CONSTRUCTION				
Foundations of Construction Law	04-0407-2286	Winnipeg	Apr 10-11	14
ELECTRICAL				
Grounding and Bonding of Electrical Systems	04-1027-2280	Regina	Jan 28-29	14
MECHANICAL				
Building Control Systems	04-0406-2286	Winnipeg	Apr 8-9	14
WEBINARS (All Times are in EDT)				
		Time		
Negotiate Your Way to Success	0101-WEB14	12:00-1:00 PM	Jan 10	N/A
Mobile Devices for Engineers	0103-WEB14	12:30-2:00 PM	Jan 15	N/A
Change Management: Leading Yourself and Others through Change	0102-WEB14	12:30-2:00 PM	Jan 20	N/A

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Regina's Great Debate

BY MARTIN CHARLTON COMMUNICATIONS



P3 Hot Topic in Queen City

A common expression in the wastewater treatment industry is that “sewage isn’t sexy”. But the citizens of Regina made a determined effort to change that thinking during that city’s recent debate over a proposed P3 wastewater treatment plant. At its height, the debate involved celebrities, slick ad campaigns, politicians and lobby groups. It was the subject of heated discussions in taverns and around family dinner tables across the city. In all likelihood, it was the most attention that the subject of sewage has received anywhere ever.

While the intensity of Regina’s debate might seem odd to outsiders, it helped to highlight many of the strengths as well as some of the pitfalls of the P3 model and left the citizens of Regina better educated about this emerging project development model. It also serves as a reminder to engineers and public planners that even the most nuts-and-bolts proposals are not immune from the whims of politics and public controversy.

Sticker Shock

The Regina wastewater treatment debate started off in mundane terms. At its foundation was yet another discussion among city politicians and bureaucrats about yet another infrastructure renewal challenge.

The city’s wastewater treatment needs were being hit from three sides. The existing plant was reaching the end of its operational life. At the same time, new federal and provincial effluent standards made it impossible to simply upgrade the old plant. Finally, Regina’s recent rapid growth made it necessary for the city administration to plan for much greater processing capacity.

The clear conclusion was that the city required a larger, newer and more modern facility. But that conclusion came with a major sticker shock: \$224 million to create the kind of plant the city would need for the future.

Ballooning Budgets

The estimated price tag was scary enough for the city but not nearly as scary as the fact that this was, ultimately, only an estimate.

“Public projects are notorious for going over budget,” said Dorian Wandzura, P.Eng., former deputy city manager and chief operating officer for the City of Regina.

Regina residents had recently seen evidence of this with the construction of the City Square Plaza project which had been estimated to take one year and cost \$7 million yet was finished a year late and at least \$6 million over budget.

Wandzura, who has since moved on to a position with the City of Edmonton, can cite many other examples of public projects that have proven more costly than expected. The problem, as Wandzura sees it, is not necessarily with the capital costs of the project but with the life cycle funding.

“Governments are not good at planning for the long term. They are not good at 30-year projects. A common situation is that, when an infrastructure asset is built, the politicians will come in, get their pictures taken and have a big ribbon cutting. But five years later when the asset needs funding for maintenance or upgrading, it gets put on the back burner.”

Carrot and Stick

The P3 model, in which the city would effectively contract out the design, construction and operation of the wastewater treatment plant for a 30-year period, appeared to offer the city a solution for managing its costs (see sidebar, “DBB vs. P3”).

To make the proposal even more attractive, the federal government had launched a program to promote P3s by subsidizing a portion of the cost. This subsidy, in the case of Regina’s wastewater treatment plant, would come to \$58.5 million.

Even so, it could not be taken for granted that P3 was the best model. As Wandzura admitted, the history of P3s includes both successes and failures.

“They are not a panacea. They are not free money. They are not always the right way to do things. They have to be examined on a case-by-case basis,” said Wandzura.

The city consequently hired Deloitte to undertake a study of 12 different funding models and make a recommendation. The result was a clear recommendation for a P3 model but with a proviso that helped fuel future debate.

The Deloitte assessment showed a potential savings to taxpayers of nearly \$80 million over the life of the plant. However, that amount included the federal subsidy. Without the subsidy, there was only a 4 per cent difference between the life cycle costs of traditional design-bid-build versus P3.

Risky Business

Still, the point made repeatedly by P3 advocates is not the cost savings but the risk management.

“In a P3, you can negotiate a fixed price. Any variations in operating and maintenance costs can be managed through a fixed-price contract. If the private partner doesn’t deliver what’s in the contract, you don’t pay them.

There is just one neck to grab if the government has a concern about the delivery of the project.”

But while the P3 model may have advantages in managing financial risks for governments, it has proven less than stellar at managing political risks.

Political Problems

Long before Wandzura and the rest of the senior management at Regina City Hall were carrying out technical and financial analysis, others had already carried out a very different sort of analysis on P3s.

In the early 2000s, the Canadian Union of Public Employees (CUPE) established a campaign to “to fight back all forms of privatization including P3s, contracting out, competitive bidding, bad trade deals and the privatization of the funding, administration and delivery of public services.”

One of the key fronts identified by the union for this battle was the water and wastewater sector. To this end, the union committed \$5 million to a national fund to fight back against any form of private involvement in that sector. “Water Watch” committees and website domain names were established in 30 centres across the country.

When Regina’s wastewater plans became public, an allegedly grassroots anti-P3 group – Regina Water Watch – sprang to life although its website domain name was subsequently discovered to have been registered by the CUPE headquarters in Ottawa. Many of its key organizers had CUPE ties and the group ultimately admitted to receiving an undisclosed amount of financing and assistance from the union.

After a petition drive fraught with acrimony and mutual accusations of cheating, Regina Water Watch succeeded in forcing the city to hold a binding referendum on the P3 issue. The result was a political advertising campaign whose intensity was unmatched outside of a federal election. It included numerous newspaper and television ads, a deluge of junk mail and daily battles in letters to the editor section, opinion columns and phone-in shows.

In the end, city residents voted 57- 43 per cent in favour of the P3 model.

Questions Arise

While the Regina Water Watch campaign relied on some emotional and ideological arguments (“water is a human right”), it also raised some practical and reasonable objections.

A recurrent question about P3s is: How can they be cheaper when the private contractor has to make a profit?

“Private consortiums have the ability to find efficiencies through the course of their business that the public sector often can’t. The contractor will typically have more recent experience building and running the most up-to-date facilities. They have efficiencies through multiple operations, greater purchasing power and innovation, so they can do things better at lower cost and still make a profit,” said Rob Court, P.Eng., manager of environmental engineering for the City of Regina.

This explanation, P3 advocates claim, also covers the common criticism that private firms face higher lending rates than public entities.

But while efficiencies of scale explain the profit concern, it creates another: since P3 projects are handled by large entities, won’t that squeeze out participation by local contractors who otherwise would have shared in pieces of a traditional design-bid-build process?

“These types of projects are so large and complex that they can’t be handled by just one company. The bidders are consortiums of companies and consultants that bring in a range of specialties, which means there is still plenty of room for local involvement. All of our qualified bidders have Saskatchewan connections. They include Saskatchewan-based companies or companies that have substantial Saskatchewan branch offices or both,” says Court.

Aftermath

As quickly as it came, the Regina P3 controversy has already effectively vanished from public discussion. The issue has returned to being a pragmatic concern for the city’s engineers and bureaucrats.

“The request for qualifications process was stalled because of the referendum but we are now through that. We have short-listed three consortiums to whom we’ve sent requests for proposals,” said Court.

Court describes all the teams as having “a great blend of world-class experience with local talent.”

The city is expecting to make a choice by May of next year. Work will start almost immediately thereafter. The project is expected to be completed by December 31, 2016.

“That’s the drop-dead date the province has given us to upgrade our effluent standards. If it’s not done by that date, we will be able to start imposing penalties on the contractor – which, again, is one of the great advantages of the P3 model,” Court said.

Like Wandzura, Court was reluctant to speak about the contentious ideological debate that the project inspired. Instead, he’s relieved to be able to focus once again on the practicalities of the P3 model.

“I’ve learned a lot about this model over the course of planning this facility. It has its limitations and you definitely need to do a thorough business analysis to make sure it’s the right fit but the same can be said of any

Design-Bid-Build vs P3



Traditional Design-Bid-Build:

- One consultant designs the plant
- Several different builders construct various pieces
- City operates and maintains the plant during and after construction
- City is fully responsible for costs related to risk

P3:

- A single contractor designs and builds the plant
- The same contractor operates the plant during construction and operates and maintains the plant after construction
- The city owns and controls the plant
- Contractor is responsible for costs related to risk under a fixed-price contract

Source: City of Regina



Gloria Transit Mundi:

Saskatoon's transit facilities finally find a new home

BY MARTIN CHARLTON COMMUNICATIONS

Any time you have an urban facility nicknamed a “barn,” you know that residents probably don’t like it very much. This was a feeling shared by many residents of Saskatoon about the city’s century-old transit facility a.k.a. the “bus barns.”

The city is responding with an aggressive – and very expensive – plan to relocate and modernize the facilities. Like many large-scale municipal projects in Canada these days, the proposed Saskatoon Civic Operations Centre project is slated to be developed using a P3 model.

History of the Bus Barns

The Saskatoon Transit maintenance garages – originally known as the Saskatoon Municipal Railway garages – practically qualify as heritage sites. They have been the focal point of the city’s transit system since 1913, back when they were home to trolley cars instead of buses. The facility was originally built on the city’s western edge.

However, the city rapidly grew around the area so that the garages are now surrounded by the Caswell Hill residential area.

Having a busy transit facility located in a residential area has created many obvious safety hazards over the years. Those hazards have increased in recent years as the buildings have outlived their operational life and become obsolete.

Residents of the area have long complained of noise and pollution. As well, new buses’ designs are significantly taller than old models, making for some tight squeezes in the old garages. In 2011, an overhanging gas line was severed when a new hybrid model bus crashed into it.

It was clear that something had to be done.

Several Birds with One Stone

While the garages could have – and, arguably, should have – been moved at any time over the past 40 years, the city

of Saskatoon administration finally decided to take the plunge to move them as part of its new strategic plan. The proposed new facility, called the Civic Operations Centre (COC), is aimed at doing more than just house buses.

“The way we see it, the COC is a linchpin project that will trigger urban renewal and the implementation of several other priorities. For starters, this is about urban renewal in our downtown neighbourhoods. Getting the bus barns out of Caswell Hill will make way for green space and all sorts of other amenities. It will provide an overall improvement to the quality of life of people in the area,” says Doug Drever, P.Eng., project director in the city manager’s office at the City of Saskatoon.

The new centre, which is expected to be completed in 2017, will place the Saskatoon Transit facilities in an industrial area at the city’s southwest edge, at a safe distance away from residents and adjacent neighbourhoods. Drever says it will provide Saskatoon Transit with increased administrative, fleet maintenance and equipment storage space.

“But that’s just one part of the project. We will also be placing the city’s new, permanent snow management facility out there. And the COC will someday be home to our city yards, which will go even further to help the redevelopment and revitalization of our North Downtown and Warehouse District,” says Drever.

The new snow management facility will eliminate the set-up, maintenance, and environmental remediation costs that the city has faced, year in and year out, with temporary sites.

“Environmental issues are a growing concern with municipal snow dumps. This facility will help us properly contain, treat and dispose of snow melt run off. And it will help us to reclaim and reuse some of our sanding material.”

Cost savings through Co-location

Why combine bus garages with a snow dump? While the combination doesn’t seem obvious at first, Drever argues that it makes good economic sense.

“The COC site will also help us improve co-operation and coordination between services. The garages and the snow dump, as well as the other services we hope to move out there later, will be able to share resources, tools and equipment, administrative and meeting space and support functions like mechanical services. By relocating some of our key operations to this location, we can increase our

efficiency and productivity, reduce costs and improve services for the citizens of Saskatoon.”

“This site also provides direct access to the new Circle Drive South Bridge and road system, which will enable us to move equipment, materials, people and vehicles more quickly around the city.”

Dollars and Sense

While the relocation and consolidation proposal made sense, it did not come cheap. Phase 1 of the project alone is estimated to cost \$120 million.

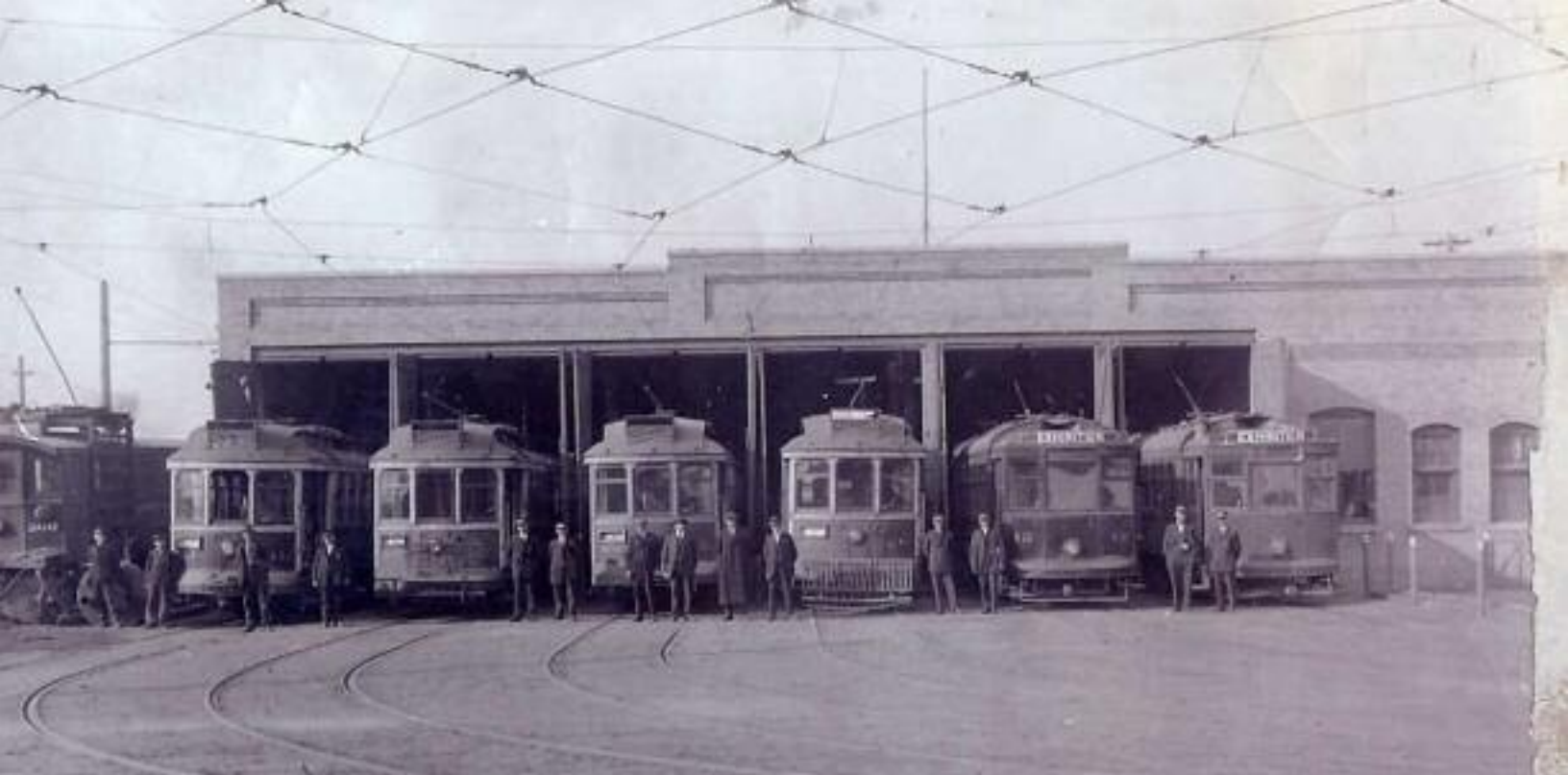
“A municipal government would not be able to handle a project like that on its own without some sort of assistance from senior government. We started looking around for federal or provincial programs for which the project would qualify,” says Drever.



In 2011, the city administration took an interest in the PPP Canada program offered by the federal government which would cover up to 25 per cent of a qualifying program if it was carried out on a P3 model.

“Before we jumped into that, though, we looked at the business case for doing it as a P3. We wanted to make sure that model would make sense with or without the federal grant.”

The city’s analysis showed that, even without including the \$42.9 million federal grant, the value for money calculation for Phase 1 would be in the 12-15 per cent range, which would come to a savings of approximately \$51 million over the life of the project.



Saskatoon Municipal Railway Garage circa 1913. Photo courtesy Saskatoon City Archives.

“We would have had to pursue this project sooner or later because of the safety issues but pursuing alternative procurement, like P3, will allow us to carry through with it sooner, with less risk and with increased value to our citizens.”

In addition to designing, building and financing the COC, the city’s P3 partner will also be responsible for maintaining the transit facility, and maintaining and operating the snow storage decontamination facility.

“In addition to the cost savings, the other factor that made this really attractive to us was the risk management. When you are dealing with vehicles, there are always going to be accidents. On the snow dump side, permanent snow storage is a new approach for us – it may even be completely new to the province. We don’t have experience managing flooding conditions or environmental containment. Those are the kinds of things that an outside contractor would bring to the table that add a great deal of value to the project.”

The proposal calls for a private sector partner to handle these responsibilities for 25 years, turning responsibility back to the city when the agreement ends. Throughout the 25-year period, the city will retain full ownership, control and accountability for the services delivered through the new COC. Drever expects that no net jobs will be lost as a result of the P3 approach.

Current Status

Although the city has been planning and holding public consultations on the COC for years, the project itself is still in relatively early stages. The city recently completed requests for qualifications which will allow them to put together a short list of three qualified bidders.

Drever expects that, as with many other P3 projects, the bidders will be teams or consortiums rather than individual companies. All of the bidders, he says, have Saskatchewan connections within their teams.

“From there, we expect the request for proposal stage to be wrapped up sometime in March. Then it will take the winning bidder about nine months to put together the financial arrangements to complete the agreement.”

Construction of the 180-acre facility is expected to start in early 2015 and to be completed by late 2016.

“To date, things have been going very well. Here at the city, we have a super team working on the project. We are looking forward to moving forward. From our past experience working with private companies on major city projects, we have every expectation that we will see significant cost savings and efficiencies on this project.”

When P3s Go Bad

Any expert on P3s will tell you the same thing: they are not a panacea. They work sometimes but not others. Politically, P3s are currently favoured by both the federal and provincial governments, so the public has heard many examples of cases where P3s have worked. What about examples of P3s that haven't worked?

Highway 407 Express Toll Route



One of the most publicized examples of a P3 gone wrong is the Highway 407 Express Toll Route (ETR), a 108-kilometre highway across the north of Metropolitan Toronto. The request for proposals (RFP) was announced in 1993, when the province was emerging from a recession that had left it in an extremely weak financial position. The operator was

required to maintain the facility, meet all Ontario Ministry of Transportation safety standards and undergo random audits. The private partner would be reimbursed from toll revenues but neither traffic levels nor toll revenues were guaranteed.

In the responses to the RFP, no credible private partners were willing to assume the financing risks. Both of the two qualified teams sought extensive provincial backing for the project debt, which the province ended up providing.

Since 1999, tolls were raised six times, and in 2004 the consortium announced that it intended to raise tolls again, claiming it was losing money. The toll increases dampened Highway 407 volumes, resulting in congestion on adjacent roads.

Also, it emerged that some of the initial capital costs had been covered by the province directly since they involved post-bid design changes. This reduced the savings the province claimed to have received from using P3.

The 407 project, far from being a partnership, has descended into an ongoing political and legal battle between the private-sector team and the government. The operators are, naturally, more interested in maximizing profits than in improving Metropolitan Toronto traffic flows. The government, on the other hand, has been politically opportunistic whenever public outcry over toll increases has grown too loud.

Cranbrook Civic Arena Multiplex

In the mid-1990s, the City of Cranbrook decided that it needed a new recreational facility. The project was estimated to cost over \$20 million. The city decided on a P3. Cranbrook signed a 30-year “design-build-finance-lease-operate-and-transfer” agreement with KeenRose Technology Group. The city provided the land and leased back the aquatic centre for \$800,000 per year. KeenRose assumed the risk associated with the operating costs of approximately \$1.5 million and guaranteed the capital cost of the facility at \$22.6 million. Under the operations agreement, the city was allocated 1,500 hours per year of arena time, with the balance available to the operator to sell at \$125 per hour.

The financing arrangements soon fell apart on all fronts. In 2001, the mayor announced a 10.9 per cent tax to cover a \$500,000 construction cost overrun at the multiplex. In October 2001, the operator complained that its costs were higher than expected and its revenue lower. For example, revenues from concerts and special events were far below projections. The city agreed to cover revenue shortfalls beyond its initial guarantees. In 2002, the city auditor decided to include the \$22-million lease on the city's financial statements, resulting in a substantial decrease in the city's borrowing power.

After dealing with legal disputes, cost overruns and construction delays, the P3 was terminated five years after the project began. The operator withdrew in 2004 after paying the city \$1.7 million to take over ownership of the complex. The complex proved to be much more costly than projected, and the city was not effectively able to protect itself against this through the use of a P3.

Source: Public-private partnerships in Canada: theory and evidence by Aidan Vining R. and Anthony E. Boardman, for Canadian Public Administration magazine

SaskBuilds for the Future

BY MARTIN CHARLTON COMMUNICATIONS



Although it should be obvious, it's worth noting that there are three Ps in P3. With so much attention focused on the second P – private-sector involvement – some people may forget that the first P stands for public. Governments at all levels play an important part in the viability of P3 projects. The Saskatchewan government has established a new entity, SaskBuilds, dedicated in part to assisting P3 projects.

Established in October 2012 as a Crown corporation, SaskBuilds provides advice and recommendations on major infrastructure projects to provincial ministries and their partners.

According to the corporation's website, it is dedicated to advancing "innovative approaches to infrastructure development and alternative financing models" – in other words, P3s.

"The opportunity to be part of the team at SaskBuilds is really about helping shape the province in innovative ways to provide infrastructure for today and for generations to come," says Penelope Popp, P.Eng., project director at SaskBuilds.

Although the corporation is still quite young, it is already making the news and has a number of significant projects under way.

Swift Current Long-Term Care Project

Last summer, while the province's media were focused on Regina's P3 debate, another major P3 project was rapidly progressing. In July, the Cypress Health Region and Saskatchewan provincial government announced plans to build a new \$80 million, 225-bed long-term care facility for Swift Current. The facility will replace three existing long-term care centres and provide modern, high-quality long-term care services to people requiring level 3 and 4 care and specialized long term care programming.

The province and the health region announced that the project would be built on a design-build-finance-maintain P3 procurement model. The formal process to select a team of companies to deliver the project started with a request for qualifications (RFQ) issued on August 14, 2013. As is typical after RFQ processes, three qualified proponents will be short-listed to submit proposals.

"The Swift Current long-term care facility will be the first P3 in the province of Saskatchewan. From the vantage point of project director, it's been an amazing view into the world of P3s to see how many experts, both locally and across Canada, work diligently to ensure that there is value for both the province and the Cypress Health Region. The local resources from the health region, the Ministry of

Health and the City of Swift Current have been invaluable in ensuring that the best product and project will be delivered on behalf of the community. So far, it's been inspiring to witness the efforts that the team has gone to in designing a facility that will meet the needs of clients, their families, and staff. Our efforts are to support the team in delivering their vision through alternative procurement, while ensuring that we are doing this in a way that makes sense financially for the province," says Popp.

Construction work for the long-term care project in Swift Current is scheduled to begin in the summer of 2014 and the facility to begin operations in the spring of 2016.

SaskBuilds will manage the competitive selection process to select the private sector partner team.



Joint-Use Schools

While the Swift Current project attracted relatively little public opposition, a more recent SaskBuilds announcement may give Regina's wastewater treatment plant a run for its money in terms of media coverage. On October 22, the province announced the construction of nine new schools to accommodate explosive population growth in Saskatoon, Regina, Warman and Martensville.

Drawing on experience from Alberta and other provinces, the government has decided to consider developing these schools on a P3 model as well. Critics were quick to weigh in on some of the difficulties that early versions of this model faced in the neighbouring province, such as examples of the private contractor restricting after-hours public access to the schools.

"More recent examples have been refined and delivered with fewer challenges. The Saskatchewan government recognizes the lessons learned and will move forward based on the more recent successful models," says Popp.

The plan for the schools is innovative in another way. The schools will be developed on a joint-use model, with Catholic and public school divisions sharing the facilities.

The model offers options for shared programming for students and shared maintenance costs between the divisions.

"We are currently working closely with the Ministry of Education and the five school divisions to support them as we prepare to assess P3 procurement options. SaskBuilds will be focusing primarily on the financial modelling and business case to determine what procurement model would be most beneficial to the school bundle project."

Other Projects

In addition to these two higher profile projects, SaskBuilds is set to assist with the replacement of the Saskatchewan Hospital North Battleford and the new Regina bypass.

"SaskBuilds is currently assessing the viability of both the Regina bypass project and an innovative solution on behalf of North Battleford. It's a great opportunity to partner with multiple industries and experts across government."



While it may seem that SaskBuilds already has its hands full, this is only the beginning for the new Crown, says Popp.

"For a team of nine individuals, SaskBuilds has made leaps and bounds in the last year by way of alternative procurement on behalf of the province. In partnering with ministries to support them in their P3 projects, we are rapidly emerging in North America as a key agency for alternative procurement."

Member Profile



This month *The Professional Edge* chats with Sean Kilback, P.Eng., structural engineer with Brownlee Beaton Kreke Consulting Engineers.

Tell us about your personal and professional background.

I grew up in Regina and attended Robert Usher Collegiate. I've lived and worked my whole life here except for the four years I studied at the University of Saskatchewan. I met my wife, Shea, while I was at the U of S.

Why did you choose to go into engineering?

I've always been interested in buildings and architecture. The architecture of buildings was fascinating but I eventually became more intrigued by how some of these marvelous buildings were actually standing. Even so, it wasn't the first field I went into. I started at University of Regina where I took a lot of math and science classes as well as some engineering classes. The branch of engineering I was studying at that time didn't interest me and I ended up taking a few years off to go into the workforce. I spent about five or six years working at different jobs including as a rig hand, and delivering mail for Canada Post.

On the rigs, I was the low man on the totem pole so I was always given the dirtiest jobs which usually ended with me being covered in oil or brine water during the coldest days of the year. That was part of what motivated me, in the longer term, to go back for more education.

What was your biggest challenge in college?

Adjusting to student life after being in the workforce was challenging. I was used to spending money that I was earning and had to transition back to stretching my dollars as far as I could.

I think as a mature student I had different challenges than some of my younger classmates. Having gone through one stint at university had me prepared for the workload. Of course, the course load was difficult at times, as it is for everyone in engineering. But I was fortunate to have a good network of friends and classmates who worked together as a team to prepare for assignments and tests.

What was your first job after college?

Right here! Brownlee Beaton Kreke hired me before I graduated. They were looking for a design engineer which was exactly what I wanted to do. I met the principals and the rest is history. I started in 2002 and in 2011 became a partner in the company. I feel very fortunate to have been given this exciting opportunity.

What do you feel was your single greatest accomplishment as an engineer?

Our company has been involved with many interesting projects. One of my first major projects I worked on was the U of Regina residence towers in 2002-03. I was also a design engineer on the RCMP Heritage Centre but I would have to say I'm most proud of The Gardens on Rose condominium project here in Regina. It is a project that I've been able to take from preliminary schematics through to project completion. We have had to overcome a number of structural challenges; for example the lower parkade columns and upper condominium columns do not line up with one another. We designed a special 'transfer' floor where we could transition columns into new locations for the top half of the building.

We had a good team from the ownership group, architect and consultants, through to the contractor. It always felt like we were pushing in the same direction.

What are your interests outside of work?

I have three kids so they keep me pretty busy. I like to go to Rider games and I volunteered as a VIP driver during Grey Cup week.

In the winter I play old man hockey and in the summer I golf when I can.

Have you ever met anyone famous?

I met Mike Weir at a golf tournament one time. I badgered him until I got an autograph. I also met Paul Kariya who used to play for the Anaheim Ducks; I was out at a Vancouver Canucks game and went out to a club with some friends afterwards. Kariya and some other Ducks came in. We tried to have a conversation but it was pretty loud in the club so we were pretty much just shouting at one another.

What is your favourite vacation spot?

We usually try to get away somewhere warm in winter. We went to Punta Cana last winter and I think we will try to go back again this year. My family enjoys the sun.

If you could have a super-power, what would it be?

I'd like to be able to fly. It would be nice to be able to avoid morning traffic and just zip to work. Or if I wanted to take holiday I could just take off.

If you could live in another time period, which would it be?

I think the Wild West. I've always liked cowboy movies. All they seemed to do is drink, play poker, and get into the occasional gunfight.

Who has had the greatest influence on your life and career?

I would definitely say my mother. She raised three kids and put herself through school while doing it. She instilled a strong work ethic and good morals. Now that I have three kids of my own, I appreciate it even more. My wife has also been very supportive of my career and has sacrificed a lot for our family.

My mentors, Rob Beaton and Garry Kreke had the greatest influence on my professional life. They taught me a lot about what it takes to be a consulting engineer and the effort required to succeed in this business. I still go to both of them for advice.

Something to Brag about?

The January-February issue of *The Professional Edge* is all about you!

Our annual Company Profiles issue will profile Saskatchewan-based engineering and geoscience companies and projects. If you want your company or project profiled or would like to recommend one, let us know.

Please contact:
Professional Edge Editor
Lyle Hewitt @ lyle@martincharlton.ca



APEGS View



Do you have an email address on record with APEGS?

APEGS is relying more and more upon email distribution to notify members of important events, including APEGS elections and organized events. If you don't have a valid email address on record with APEGS email us at apegs@apegs.sk.ca and request your email address be added to your record.

To change your preferred email address, log on to APEGS On-Line Services on the APEGS website at www.apegs.sk.ca. Your user name is your five-digit registration number and if you have forgotten your password or if it is your first time logging on, you can obtain your password by clicking on "New password / Forgot password." Enter the information requested and an email containing your password will be sent to the preferred email address on record with APEGS. If you have any questions, please contact the APEGS office.

In Memoriam

Malcolm W. MacDonald, P.Eng.
Barry M. Unrau, Engineering Licensee
Roger P. Couturier, P.Eng.
Leo P. Freitag, P.Eng.

COUNCIL NOTES

October 11, 2013

Delta Bessborough, Saskatoon, SK

17 of 19 Councillors present

- Council was advised that Mark Wittrup, P.Eng., P.Geo., Geoscience South District, is leaving the province and no longer eligible to serve on Council.
- Geoscientists Canada President Greg Vogelsang, P.Eng., P.Geo. did a presentation to Council outlining the activities of Geoscientists Canada. Vogelsang said similar presentations are being made to other geoscience regulators in Canada.
- Council appointed Leon Botham, P.Eng., FEC as Chair, Margaret Anne Hodges, P.Eng., FEC as Vice-Chair of the Audit Committee, and Bob Cochran, P.Eng., David Kent, P. Eng., FEC and John Unrau, P.Geo., as members of the Audit Committee.
- Council reappointed Sandra Foster, P.Geo., FEC (Hon.), FGC as Director of Geoscientists Canada for a one-year term.
- Council was advised of the following appointments by the Governance Board: Sarah Eaton, P.Geo. and Anant Minhas, P.Eng. to the Experience Review Committee for a three-year term; Janis Dale, P.Geo. to a three-year term on the Academic Review Committee; Sami Jasem, P.Eng. and Syed Naqvi, P.Eng. to the Professional Practice Exam Committee for a three year term.
- Dan Bonnet, P.Eng. was appointed Chair of the Experience Review Committee for a second two-year term and Daryl Andrew, P.Eng. was appointed Chair of the Licensee Admissions Committee for a two-year term.
- The terms of reference for the Registrar's Advisory Committee, as amended by the Governance Board, were approved by Council.
- Council approved Life Membership for James W. Campbell, P.Eng.
- Council was advised of the following appointments by the Image and Identity Board: Ben Boots, P.Eng., FEC to the Professional Edge Committee for a one-year term to serve as the common member to the Professional Edge Committee and the Communications and Public Relations Committee; John Styles, P.Eng. to the Professional Edge Committee for a three-year term; and Bruce Peberdy, P.Eng. and Kerry Mazurek, P.Eng. to the Awards Committee for a three-year term.
- Robert Schultz, P.Eng. was appointed Chair of the Professional Edge Committee for a two-year term.

- The 2014 AM Planning Committee has chosen “Growth and Diversity – We See More” as the theme. The annual meeting is May 1-3, 2014 at the Delta Bessborough, Saskatoon.
- The Association has provided sponsorship of \$5,000 to Saskatchewan Innovation Week held October 21-26, 2013.
- The Education Board reported that EyeInspire has been retained to work with the Professional Development Committee to define a new approach to setting a three-year professional development plan for the APEGS membership. EyeInspire may also assist with professional development planning for the annual meeting.
- The Professional Development Committee has announced January 23 and 24, 2014 as Professional Development Days in Saskatoon. Three continuing professional excellence opportunities will be offered.
- Council was advised that the June visit of Canadian Engineering Accreditation Board at the University of Regina resulted in 5/6 programs receiving a six-year approval. The Software Systems Engineering program received a 3V approval, meaning they will be re-evaluated in three years.
- The Association will provide a copy of “Rosie Revere, Engineer” to every primary school in Saskatchewan during the 2014 Engineering and Geoscience Week, March 3-7, 2014.
- Council approved a 2014 budget increase of \$10,000 for the Education Board to support the CCWESTT APEGS Teacher Experience Day.
- Terry Werbovetski, P.Eng. was appointed Chair of the Professional Development Committee for a two-year term and Stacey Sirois, P.Eng. was appointed Chair of the K-12 Committee for a two-year term.
- Council appointed Metro Hrabok, P.Eng. and Gary Yeo, P.Geo., FEC (Hon.) to the Investigation Committee for a three year term.

- The APEGS Investigation and Discipline Process booklet was approved by Council as revised September 4, 2013.
- Council set April 28, 2014 as polling day for the 2014 Council elections.
- Council appointed the following to the Nominating Committee for the 2014 Council elections: Leon Botham, P.Eng., FEC (Chair), Dan Brisbin, P.Geo., Kim Junek, P.Eng., Lawrence Melis, P.Eng., Bert Munro, P.Eng., FEC and Sheri Praski, P.Eng., FEC.
- Administration policies Admin 6.0 and Admin 6.1 were adopted as proposed.
- The next Council meeting is scheduled for Thursday, November 28, 2014 in Regina.

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APEGS Holiday Office Hours

December 24 - Closed at 3:00 pm
 December 25 and 26 - Closed
 December 31 - Closed at 3:00 pm
 January 1 - Closed





Geoscientists Canada is pleased to announce the institution of the designation Fellow of Geoscientists Canada and to honour the election of the inaugural 482 Fellowship recipients.

At its meeting in Winnipeg, Manitoba on June 1, 2013, the Board of Directors of Geoscientists approved the election of the first Fellows of Geoscientists Canada. The Geoscientists Canada Fellowship honours individuals who have given noteworthy service to the geoscience profession through service to Geoscientists Canada, service to one of the provincial and territorial regulatory bodies that are the constituent associations of Geoscientists Canada, or service in another capacity. Being bestowed with this honour means that these dedicated geoscientists have the privilege of using the designation “Fellow of Geoscientists Canada” [“FGC”]. Dedicated selected individuals who are not geoscientists may use the designation “Honorary Geoscientists Canada Fellow” [“FGC (Hon.)”].

The Association conducted its inaugural presentations at the Past Presidents Dinner held October 10, 2013 at the Saskatoon Club. The Association will continue the tradition of bestowing individuals with their fellowships annually at the APEGGS Annual Meeting and Conference in May.

APEGGS is pleased to announce that the following have been bestowed with the designation “Fellow of Geoscientists Canada” or “Honorary Geoscientists Canada Fellow”:

Kevin Ansdell, P.Geo., FGC
Shawna Argue, P.Eng., FEC, FGC (Hon.)
Sharon Baldwin, FEC (Hon.), FGC (Hon.)
Leon Botham, P.Eng., FGC (Hon.)
Barry Collins, P.Geo., FEC (Hon.), FGC
Sandra Foster, P.Geo., FGC
Ken From, P.Eng., FEC, FGC (Hon.)
Jon Gillies, P.Eng., FEC, FGC (Hon.)
Fran Haidl, P.Geo., FEC (Hon.), FGC
Steve Halabura, P.Geo., FEC (Hon.), FGC
Dan Hogan, P.Eng., FEC, FGC (Hon.)
Peter Jackson, P.Eng., FEC, FGC (Hon.)
Donald Kent, P.Eng., P.Geo., FEC, FGC
Rick Kullman, P.Eng., FEC, FGC (Hon.)
Margaret Kuzyk, P.Eng., FEC, FGC (Hon.)
Tina Maki, P.Eng., FGC (Hon.)
Bob McDonald, P.Eng., FEC, FGC (Hon.)
Peter Miller, P.Eng., FEC, FGC (Hon.)
Barbara Miller, FEC (Hon.), FGC (Hon.)
Albert Munro, P.Eng., FEC, FGC (Hon.)
Art Opseth, P.Eng., FEC, FGC (Hon.)
Dennis Paddock, P.Eng., FEC, FCSSE, FCAE, FGC (Hon.)
Clarence Reed, P.Eng., FEC, FGC (Hon.)
Malcolm Reeves, P.Eng., P.Geo., FEC, FGC
Philip Reeves, P.Eng., P.Geo., FEC, FGC
Bryan Schreiner, P.Eng., P.Geo., FEC, FGC

Fees Notice

Fees for 2014 are due on or before
December 31, 2013

APEGS has mailed out dues notices for 2014 annual fees to both individual members and holders of a Certificate of Authorization. Your annual fee payment covers the upcoming calendar year. If you have not received your dues notice, contact the APEGS office apegs@apegs.sk.ca, 306-525- 9547 (Regina) or 1-800-500-9547 (North America). Fees are due on or before December 31, 2013 regardless of whether you received your dues notice. In accordance with The Engineering and Geoscience Professions Administrative Bylaws, 1997, your membership will cease on January 31, 2014 if your annual fee payment has not been received in the APEGS office on or before January 31, 2014.

Members who are 65 years of age and retired are eligible to apply for Life Membership. Life members are not required to pay the annual membership and licence fee; however, if they wish to resume practice, fee payment is required.

Members who are retired or not working (at anything) in Saskatchewan can retain membership but are eligible for a waiver of the annual licence. More information can be obtained from the documentation accompanying the dues notice or from the APEGS office.

Failure to maintain your membership may result in ineligibility for benefits. Members who do not retain their membership in APEGS and/or another Canadian association/ordre will lose coverage under the National Secondary Professional Liability Insurance Program and will also be ineligible for the group life insurance program offered through Manulife and Engineers Canada (CCPE).

Members allowing their membership to cease are subject to a 15 percent fee to reinstate their membership and annual licence. The late payment penalty for the holder of a Certificate of Authorization is also 15 per cent of the annual fees. Members who notify the APEGS office in writing of their intent to resign their membership on or before January 31, 2014 may reinstate their membership and licence during the calendar year without the payment of a reinstatement or application fee.

Members are asked to pay fees online using the On-Line Services available through the APEGS website www.apegs.sk.ca.

Members who access On-Line Services and do at least ONE of the following:

- Pay your annual dues (except Certificates of Authorization)
- Renew your Permission to Consult for 2014
- Report your Continuing Professional Excellence (CPE) credits for 2013
- Update your contact information
- Select which committees you wish to be a volunteer on ***NEW***
- Select the constituent societies to which you wish to release your email address ***NEW***



will be
entered to
**Win
an
iPad**

At least one of these items must be completed online by January 31, 2014, and your membership must be renewed for the 2014 year to be eligible for the iPad draw.

Your name will be entered only once. However, we encourage all members to complete as many of these things on-line as possible. The draw will be held on February 27, 2014, and the winner will be announced in the March/April issue of *The Professional Edge*.

NEW to On-Line Services within "Fee Payments" is the ability to pay multiple items owing including event registration fees, textbook purchases, etc.

Fees can also be paid by cheque, VISA, AMEX or MasterCard at the APEGS office.



Law & Ethics Seminar Fall 2013



The APEGS Fall Law & Ethics seminar was hosted on September 13-14 in Regina at the Delta Hotel and Convention Centre. The two-day seminar reviews a broad range of topics regarding law, ethics and professional practice for engineers and geoscientists-in-training who are preparing to write the Law and Ethics examination. This seminar had 138 attendees, with 158 registered to write the exam October 26, 2013.



The banquet dinner speaker was Mr. Ian Fairlamb, P.Eng., program manager for BHP Billiton's potash portfolio. Jansen, BHP Billiton's most advanced potash project, is currently in the feasibility study phase and is subject to approval by the BHP Billiton board. At full design capacity, Jansen is intended to be the largest potash mine in the world. Ian reviewed the scope of the project and shared the current state of progress on the construction.

The seminar concluded with a dramatization of a discipline hearing. The actors from left to right: Richard Monseler, Claire Hurst, Gareth Nicol, Liz Reynolds, Rob Reynolds, Rod Hutchinson. The actors have performed "Gilbane Gold – The Discipline Hearing" at the seminar for more than 10 years. Thank you.



2013 Engineers Canada Scholarships

The 2013 Engineers Canada scholarships were awarded October 3, 2013 in Ottawa.

The annual scholarships are provided through the generous support of Manulife Financial and TD Insurance Meloche Monnex.

They reward outstanding engineers who demonstrate great potential as they build on their engineering background by pursuing advanced degrees.

APEGS had two recipients in 2013:

Catherine Tatarniuk, P.Eng., is pursuing a doctorate in Civil Engineering (Geotechnical Engineering) at the University of Canterbury in Christchurch, New Zealand. She is researching how to stabilize landslides in clay soil using deep soil mixing technology.

Garrett Schmidt, P.Eng., is pursuing a Master's in Business Administration at the University of Saskatchewan. He will enhance his understanding of management systems in order to design more effective infrastructure systems.



Rick Kullman, P.Eng., FEC, FGC (Hon.), Garret Schmidt, P.Eng., Dwayne Gelowitz, P.Eng., FEC and Dennis Paddock, P.Eng., FEC, FCSSE, FCAE, FGC (Hon.) at the ceremony in Ottawa. Catherine Tatarniuk, P.Eng. was unable to attend.



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Environmental, Health and Safety Bulletin

Supreme Court of Canada Confirms Broad Duty to Report Environmental Discharges

When in doubt, report. That is the explicit message delivered by the Supreme Court of Canada in yesterday's decision regarding the duty to report to the Ontario Ministry of the Environment (MOE) when a contaminant is discharged into the environment. In *Castonguay Blasting Ltd. v. Ontario (Environment)*, the Court confirmed that the duty to report under the Ontario Environmental Protection Act (EPA) is very broad and easily triggered.

The Facts

Castonguay Blasting Ltd. (Castonguay) was conducting blasting operations for a highway-widening project. The operation went awry and an explosion propelled a substantial quantity of fly-rock into the air, damaging a home and a car, and landing in the yard of the home. Castonguay did not report the discharge to the MOE. Castonguay was convicted of failing to report to the MOE the discharge of a contaminant into the natural environment, contrary to s. 15(1) of the EPA. The Supreme Court of Canada dismissed the blasting company's appeal.

The Supreme Court Decision

The Supreme Court held that the MOE must be immediately notified when two preconditions of the duty to report are met: (1) the discharge of a contaminant occurred outside of the normal course of events; and (2) the discharge had, or was likely to have, an adverse environmental impact. The Court noted that, under the EPA, an "adverse effect" is defined in eight different ways, and each of the eight branches of the definition provides an independent trigger for the duty to report.

The Court stressed that it is not necessary for there to be known environmental damage in order for the duty to report to arise. The purpose of the reporting requirement is to let the MOE know about potential environmental damage so that any consequential investigative and remedial steps by the MOE can be taken in a timely way.

The Court noted that the discharging party may not know the full extent of the damage caused or likely to be caused, and that the purpose of the reporting requirement is to ensure that it is the MOE, not the discharger, that investigates the discharge and decides what further steps are required, if any. In the Court's words, the MOE "must be notified when there has been a discharge of a contaminant out of the normal course of events without waiting for proof that the natural environment has, in fact, been impaired. In other words: when in doubt, report."

The Court endorsed an expansive and generous interpretation of the EPA and of the concept of the "natural environment" as used in the EPA. The fact that the fly-rock damaged private property and was not pollution in the traditional sense did not take the incident outside the scope of the EPA. The Court described the intended reach of environmental protection legislation as "wide and deep."

In the case before it, the Court held that the duty to report was clearly engaged. The Court stated that there was "no doubt" that fly-rock was a "contaminant" as defined in the EPA – a conclusion that is consistent with the very broad wording of the statutory definition, although not perhaps with the everyday meaning of contamination. The Court held that the fly-rock was discharged into the "natural environment" when it was propelled into the air and onto the homeowner's property. The discharge was out of the normal course of events and caused an adverse effect by damaging property and causing loss of enjoyment of the normal use of the property. The court indicated that the adverse effects were not trivial, since the property damage was extensive and significant, and a person could have been killed or seriously injured.

The Supreme Court's decision in *Castonguay Blasting* continues and expands what the Court described as an existing "jurisprudential trail" favouring a broad and generous interpretation of environmental protection legislation, with correspondingly broad obligations on discharging parties.

Source: Torys, LLP

INTERNATIONAL DevelopmentWeek

2013 Global Citizen Award Winner



Bruno Hernani *Emerging Global Citizen*

As the founder and director of GreenRoots Sustainable Living, Bruno Hernani has initiated cooperation with communities across the world. The organization emphasizes the value of ancestral cultures and knowledge, and their potential to guide a sustainable future. GreenRoots is currently working in Nepal, Peru, and Canada, enhancing the adaptability of local communities facing global environmental and social challenges.

Where do you find your inspiration?

I find knowledge and free will to create my major sources of inspiration. There are always ways and means to learn from every situation and from every person we meet. We all have different perspectives and worldviews. I find being open to them enriches my knowledge and extends my capacity to understand the world. I believe knowledge is free as well as its expression through creation. Free will to create opens new opportunities to express ideas, develop solutions, connect people, and expand our ability to use our resources in a more sustainable manner.

What advice would you give to today's high-school graduates?

No matter what your condition is or what challenges you have to face in life, it is good to remember that everyone has strengths and the power to accomplish any goal. We are free individuals and able to discern and choose what we want to do, and even though there are all types of challenges, following what you really want to do will lead you into a journey of exciting places, interesting people, and personal and community satisfaction.



International
Development Week
February 3 – 9, 2013 • www.cida.gc.ca/idw2013
I am making a difference!



Women's History Month

Mayor Deb Higgins, City of Moose Jaw was the keynote speaker at the 10th annual reception in Regina to celebrate Women's History Month.

It was held on October 16 at the Conexus Arts Centre.

"Women Moving Communities Forward"

"People must know the past to understand the present, and to face the future."

~ Nellie McClung



Mayor Deb Higgins, City of Moose Jaw, delivered the keynote speech.



Honourable Christine Tell - Minister Responsible for Corrections and Policing, MLA Regina Wascana Plains, introduced Mayor Higgins.

The public were invited to attend this free event, with displays from local organizations, activities for children during the program provided by EYES (Educating Youth in Science and Engineering), light refreshments, door prizes, and a raffle for a Hillberg & Berk necklace with beads

handmade by Somalian refugee women. CTV's Morgan Campbell served as host and the Honourable Christine Tell introduced Mayor Higgins.

October was proclaimed as Women's History Month by the Government of Canada in celebration of the many and significant contributions of girls and women to our society – and to the quality of our lives. This October was the 84th anniversary of the "Persons Case", when the "Famous Five" – Emily Murphy, Louise McKinney, Irene Parlby, Nellie McClung and Henrietta Muir Edwards – challenged the British Privy Council and won the right for women to serve in the Senate, leading to changes in laws throughout the Commonwealth.

Thank you to this year's generous sponsors!

- APEGS
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- SaskPower
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- SaskWater
- Stantec
- Temple Gardens Mineral Spa Resort
- The Hotel Saskatchewan –Radisson

For more info on Women's History Month and to RSVP for the 2014 celebration, visit www.reginawhm.ca.

To support this important event through monetary or in-kind sponsorship, provide a display for your organization, or join the planning committee, please contact Amy McGregor at amy.mcgregor@sasktel.net.



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Unearthing better results.

Call for Expressions of Interest

2014 APEGS Annual Meeting

May 1-3, 2014, Delta Bessborough, Saskatoon, SK

“Growth & Diversity – We see more”

APEGS invites you to submit an Expression of Interest to do a presentation during the professional development sessions at the 2014 APEGS Annual Meeting on Friday May 2nd, 2014 in Saskatoon.

The Annual Meeting Planning Committee is inviting speakers for track sessions with a focus on one of the following subthemes, “Personal Growth, Project Growth, Provincial Growth or Professional Growth.” Presentations are scheduled for 45 minutes, allowing for a 40-minute presentation and 5 minutes of questions and answers.

Your Expression of Interest should contain the title of your presentation and a maximum 100-word description. Submissions should include an engineering or geoscience component related to the themes described above.

Submissions should be forwarded to Tara Zrymiak - Tara.Zrymiak@snclavalin.com or Chris Wimmer - cwimmer@apegs.sk.ca

For additional information contact Chris Wimmer at (306) 525-9547 or 1-(800) 500-9547 (North America).

Terms and Conditions

All submissions will be subject to review by the APEGS Annual Meeting Planning Committee. If selected for the conference, authors are authorizing publication of their submission in the conference program and their final presentation electronically.

Professional Engineers and Geoscientists

We see more.



www.apegs.sk.ca





A Continuing Professional Excellence Opportunity

Parktown Hotel, Saskatoon, January 23-24, 2014

The APEGS Professional Development Committee is pleased to offer a Continuing Professional Excellence (CPE) opportunity for engineers and geoscientists.

Check the APEGS website for updates and registration information: www.apegs.sk.ca. Accommodations can be reserved directly with the Parktown Hotel, 924 Spadina Cres. E., Saskatoon, SK S7K 3H5, ph: 306-667-6076.

REGISTER at www.apegs.sk.ca/Default.aspx?DN=5464



SESSION ONE (JANUARY 23-24)

Get to the Point!

A Two-Day Practical Writing Course for Technical Professionals

This highly interactive two-day session is designed for engineers and geoscientists who write reports, emails, letters and proposals, and want to write them more efficiently and present their information more effectively. Sharpen your personal writing style to create a strong and effective presence. There will be individual and group practice exercises, with lots of discussion and feedback.

SESSION TWO (JANUARY 23)

Working with the Environmental Code

The Ministry of Environment's proposed new results-based regulatory model is an outcome-based process that specifies what is to be achieved and largely leaves the how up to the proponent. It establishes clear performance expectations while eliminating ineffectual scrutiny to process, especially for routine, well understood and low-risk activities.

This full-day workshop, facilitated by Saskatchewan Ministry of Environment, is for engineers and geoscientists who will work closely with the new environmental code in areas such as affected sites, landfills and transfer stations, drinking and wastewater, forest management and industrial air quality. The workshop also provides an in-depth explanation of who is a qualified person and how someone can apply for designation. Information on the ministry's new business web-based interface will also be provided.

SESSION THREE (JANUARY 24)

APEGS is pleased to inform members of a concurrent CPE opportunity being offered at the same facility on January 24, 2014. **This is not an APEGS event.**

A separate registration will be required, with details forthcoming.

1st ANNUAL Sustainability Networking Conference



Urban Transportation and Design: Getting Where We Need To Go

The University of Saskatchewan's School of Environment and Sustainability, in conjunction with APEGS and the City of Saskatoon, is pleased to introduce the first annual Sustainability Networking conference on January 24, 2014. True to its title, the conference will discuss current urban transportation practices and then examine how we can design and build more sustainable systems for our cities in the future.



January 24, 2014, 8:30 a.m.-5:00 p.m.

Register on line at
www.picatic.com/urbantransportation

Questions:
sustainabilitynetworking2014@gmail.com



Professional Engineers
and Geoscientists of BC

September 26, 2013

For Immediate Release

News Release

APEGBC's Organizational Quality Management Program Recognized with ACE Award

(September 26, 2013 – Vancouver, BC) The Association of Professional Engineers and Geoscientists of BC (APEGBC) is the proud recipient of the 2013 Association Cornerstone of Excellence (ACE) Award in the New Program category for its Organizational Quality Management Program. Presented annually by the Canadian Society of Association Executives (CSAE), the ACE awards showcase outstanding achievement in the association sector. Awards in the New Program category recognize innovative and unique association programs with proven success.

The Organizational Quality Management Program (OQM) is a voluntary program implemented by APEGBC to improve overall quality management in professional engineering and geoscience practice at an organizational level. The program recognizes the significant influence that organizations employing professional engineers and geoscientists have on the practice of these professions, and assists them in implementing or adapting in-house quality management practices and procedures consistent with the quality management requirements that individual professional engineers and geoscientists must meet under the *Engineers and Geoscientists Act* and APEGBC's Bylaws.

The program offers OQM certification to companies and organizations employing APEGBC professionals, which identifies those organizations as adhering to an APEGBC-endorsed quality management program. The program is self-funded and available to all organizations carrying out professional engineering and/or geoscience. Since its launch in September 2012, over 100 organizations have participated in the program, ranging from sole practitioners to large multinational corporations.

Founded in 1920, APEGBC is the regulatory and licensing body for the professions of engineering and geoscience and is charged with protecting the public interest. With over 29,000 members, APEGBC is one of the largest professional associations in BC and maintains high academic, experience and professional practice standards.

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Media Contact:

Megan Archibald, Director, Communications and Stakeholder Engagement
604.412.4883
604.839.1595 (Cellular)

News Beyond Our Borders



www.vancouver.sun.com

First Labrador iron mine in 50 years

Professional Engineers and Geoscientists of Newfoundland and Labrador (PEGNL) - The Alderon Iron Ore Corp's Kami Project is poised to become the first wholly Labrador-based iron mine to come into production in the province in over 50 years.

Located in Labrador West and flanked by operating iron mines, the project is close to essential infrastructure and has estimated iron reserves of over 1.1 billion tonnes.

The Kami Project consists of two parts, the iron ore mine and rail infrastructure which are wholly located in Labrador, and the concentrate storage and load-out facility located at Pointe-Noire in the Port of Sept-Îles. Currently the combined project is undergoing a joint federal and provincial environmental assessment.

New WFEO code approved

Engineers Canada - The World Federation of Engineering Organizations' (WFEO) Model Code of Practice for Sustainable Development and Environmental Stewardship was approved at the WFEO General Assembly on September 14. Developed by the WFEO Committee on Engineering and the Environment, led by

Engineers Canada, the model code is the first of its kind, providing objective guidance on responsible engineering practice as it relates to sustainable development and environmental stewardship.

"Approval of this model code is timely given the current post-Rio+20 deliberations on establishing UN sustainable development goals," said Darrel J. Danyluk, P.Eng., FEC, member of Engineers Canada's International Committee.

"Engineers Canada and engineering colleagues worldwide are committed to carrying forward their practices in a sustainable manner."

Competency-based work experience project

Engineers Canada - The Competency-Based Work Experience Project team has submitted an application for funding to the federal government's Employment and Social Development Canada. The funds are to create an online tool for the assessment of competencies for licensure. The application is currently under review, and we expect a response before the end of the year. Started in 2008, the Competency-Based Project has been working to create a more consistent, clear, and objective way of assessing the requirement for four years of engineering work experience.

Limited licensure – first applicants registered

Professional Engineers and Geoscientists of Newfoundland and Labrador (PEGNL) - In March 2013, PEGNL announced that its Limited Licensure process was in place and ready to accept applications.

The first engineering limited licensure applicant was reviewed by the Limited License Assessment Committee which recommended to the Registration Committee that the application be accepted.

Further, a person registered as an Eng. L. in Alberta applied to PEGNL for limited licensure to practise engineering. Under the labour mobility provision of the Agreement on Internal Trade between provinces, when a person who is registered in good standing in one province makes application to another province, then the application is accepted, subject to the person being in good standing in the first province.

Both persons are long-time graduates of the Newfoundland and Labrador college engineering technology programs.



i.huffpost.com

Experts estimate the Great Flood's economic impact

Association of Professional Engineers and Geoscientists of Alberta - Economists expect that the most damaging floods in Alberta's history will affect not only the province's economy but also the rest of the country. Five days after the flooding, BMO Capital Markets estimated that Canada's GDP growth in June had been reduced by \$2 billion. TD Economics, meanwhile, estimated that the disaster would erase up to \$1.5 billion from the economy, or about 0.3 per cent of Alberta's GDP.

However, both were quick to point out that the Calgary and Alberta economies would get a much-needed boost when millions of dollars are spent on rebuilding projects.

Ordre des ingénieurs du Québec to suggest solutions to commission

OIQ - The Ordre des ingénieurs du Québec (OIQ) is turning its attention to coming up with measures to prevent the collusion and corruption schemes uncovered by the Charbonneau Commission.

The OIQ's proposals for countering the schemes will focus on two main issues:

- Professional supervision: the OIQ will be making recommendations to provide tools and support to engineers so that they give priority to their ethical obligations over their employment or business obligations.
- Supervision of clients and organizations that hire engineers: the OIQ will propose measures to improve the operations of the selection committees for awarding public contracts. Procedures, as well as administrative, financial and quality controls will also be discussed in the OIQ's recommendations.

The OIQ has also committed to thorough, unsparing inquiries by its ethics officers, who should soon announce a number of disciplinary actions for members identified by the Commission.

The ethics office is currently conducting about 100 inquiries in connection with the collusion and corruption schemes. It also has more than 300 other active inquiries involving cases of illegal political contributions.



i.huffpost.com

First Nation files objection to oil sands project

Calgary Herald - In part because of the potential loss of caribou herds, Fort McKay First Nation has filed a formal objection with the Alberta Energy Regulator against an oil sands development. It's the first time in about two decades the nation has filed an objection of this kind, and the move may mean that the Dover project, which would produce 250,000 barrels per day of bitumen, will end up before the courts.

The nation, which has strong working relationships with energy companies like Syncrude and Suncor, says it will take legal action if environmental concerns over the Dover in situ project aren't addressed.

Athabasca Oil Corp. and PetroChina have proposed the project on a site 95 kilometres northwest of Fort McMurray. The band wants a 20-kilometre buffer zone to protect lands traditionally used for hunting, fishing and trapping by its 700 Dene, Cree and Métis residents.

Among concerns: a wildlife assessment that predicts the extinction of two caribou herds in the area within the next 30 years. In its approval in August, the Alberta Energy Regulator rejected the buffer zone, saying the environmental impact of the project would be negligible to minor. Provincial government approval is still required. The project would boost provincial coffers by an estimated \$26 billion in royalty payments over its 65-year life.

News From The Field



www.canadianmetalworking.com

Saskatchewan, Alberta energy workers look for biggest raises

CTV News - The Conference Board of Canada says workers in AB and SK will fare the best with wage increases next year largely due to a shortage of qualified employees in the energy sector.

Board vice-president Ian Cullwick says frenzied resource development and a shortage of trained workers and professionals means that Alberta and Saskatchewan will lead the way next year with average increases of 3.7 per cent.

Cullwick says the oil and gas sector will see the highest average increase at 4.1 per cent while health-care workers are at the low end at 1.8 per cent.

Asbestos registry officially law

Canadian Press - The SK government has marked the death of a man who advocated for asbestos safety by officially enacting a new law making asbestos reporting mandatory.

The proclamation of the law will require Crown corporations, school districts, health regions and the provincial government to ensure their buildings are listed on the province's online registry if there is asbestos present anywhere in their facilities.

The law is named for Howard Willems, who died of cancer caused by inhaling asbestos while on his job as a federal food inspector.

New pipeline will be redesigned after ancient bones found

Canadian Press - A major pipeline project in Saskatchewan will be redesigned after ancient bones were found at the dig site.

TransGas, the pipeline subsidiary of SaskEnergy, says the redesign will reduce the impact to the newly discovered cultural lands near Bethune, northwest of Regina.

The company says instead of open digging, it will use trenchless technology and install the new pipeline far deeper to avoid disturbing the area.

TransGas says First Nations Elders and monitors will be on site to give advice on the project.

TransGas was installing a transmission pipeline to supply natural gas service to a new potash mine site when bone fragments were unearthed Oct. 15.

Archeologists have determined the remains are human and estimate the bones are more than 1,000 years old.

Event mines talents of women in natural resources sector

CBC News - A conference in Saskatoon mined the talents of women working in the natural resources industry.

Mine Your Potential was created to provide career development and networking opportunities for women working in the mining industry. The event featured workshops that covered areas from mentorship to coaching to how to lead with courage.

The first-year event is hosted by the Women in Mining and Women in Nuclear Saskatchewan Inc. (WIM/WiN). The organization was created to give personal and professional development for women working in the fields of minerals, mining, nuclear and radiation.

Nancy Komperdo, P.Geo., a geologist with BHP Billiton, worked in NFLD nickel and diamond mines before moving to Saskatoon.

"[Women are] actually only about 13 to 14 per cent of the workforce in the mining industry and that's really unfortunate because women are very talented obviously and it's a great industry to work in," she said. "We're in need of skilled labour from all walks of life and I think that might be the biggest roadblock right now. People are just unaware of the opportunities that are presented here."

Keynote speaker MaryAnn Mihychuk, a former Manitoba MLA, said that more needs to be done to inform women that the industry offers many career opportunities.

“It's difficult to go into a place where you might feel challenged or uncomfortable,” she said. “The statistics in universities had shown a continuous improvement and increase in women in hard sciences. In engineering and geology, for example, there's a trend for a drop-off, so we're not doing well enough to explain that there's an opportunity.”



Poon a trusted friend to First Nations

Saskatoon StarPhoenix - Don Poon, P.Eng., has two ceremonial lances from First Nations. They are at the front of the table in his boardroom at work.

Poon is managing director of SAL Engineering Ltd. in Saskatoon. The company helps to build schools and health clinics. It paves streets, develops sewage treatment facilities, installs water pipelines and does other municipal works. SAL is a major player in Saskatchewan projects, especially with First Nations.

The lances were given to Poon as thanks. More than a facts and numbers guy, the native of Hong Kong is a trusted First Nations friend.

Recently, Poon did work for Mistawasis, west of Prince Albert, and for Sweetgrass near Battleford. In November he will drive throughout Saskatchewan, including seeing how projects are progressing in Pelican Narrows and Ochapowace.

One of his current projects is an arena and community hall in Ochapowace. Work on the \$21-million complex started 16 months ago. Poon hopes people will be skating on the new rink in Ochapowace in February.

“This is all funded by the First Nation's own economic development,” Poon said. “They are building it with a

design-build contractor. They can look at the multiplex and be proud they were part of the team that built this. There is a separate structure with a tepee-shaped room for elders to meet and teach their next generations.

“This is a team effort, dear to my heart. It's a blueprint for others to follow.”

INFRASTRUCTURE

Saskatoon releases 10-year traffic plan

CBC News - Transportation planners say Saskatoon can't stall on building its North Commuter Parkway. They've narrowed their priority list for the next decade down to 20 projects, including a North Commuter bridge, a replacement Traffic Bridge, along with interchanges and arterial roads to move motorists in new suburbs into the rest of the city.

“It's where the activity is happening now. It's where the demand is and that's where we're identifying our priorities,” Angela Gardiner, P.Eng., manager of the City of Saskatoon's transportation branch, said.

Almost half of the priority projects relate to building a North Commuter Parkway. To alleviate congestion on Circle Drive North, the city has set a target of 2016 for opening a new north bridge.

“We looked at all the development that's happening in the northeast from a residential point of view and the people that are trying to get to work that are typically in the north end. That's where the majority of our employment growth is,” Gardiner said. “That's where a lot of our priorities are targeted now with the North Commuter bridge.”

Guidelines approved at a Saskatoon city council meeting emphasized the need to preserve streams, flood plains and wetlands in the construction area, along with minimizing the creation of hard or impervious surfaces.

Most of the projects on the list do not have funding in place. City officials say a further report will be provided later this year to outline how much they'll cost.

“Just for an example, the average cost of an interchange is \$30 million,” Gardiner said. “If you add that all up, there's a significant amount of funding required.”

Small contractors can win role in P3s, panel told

Regina Leader-Post - Public-private partnerships (P3s) are supposed to be a boon for private-sector contractors, but many small- or medium-sized construction companies find themselves shut out of larger P3 projects due to their lack of size or expertise.

But local contractors can get a piece of the action if they're prepared to invest the time and money required to bid on P3 projects, about 80 participants at a P3 panel in Regina were told.

Mark Cooper, president of the Saskatchewan Construction Association (SCA), which sponsored the one-day session, said bidding on P3 projects can be daunting for many small or medium-sized contractors.

Specifically, Saskatchewan contractors are asking how they can compete with large multinational companies that have the specialized knowledge and deep pockets to dominate the global P3 marketplace. So SCA brought in some experts from BC, Manitoba, and Ontario to answer those questions.

Dean Drevniok, president of Frecon Construction of Russell, Ont., said size does matter when it comes to competing for P3 contracts.

"If you're a smaller or middle-sized company, you're going to have to look at partnering with somebody," said Drevniok, past-chair of the Ontario General Contractors Association.

Patrick Waunch, president and CEO of Rambow Mechanical in Kelowna, BC, said the P3 experience has been generally "very positive" for local contractors in that province.

Robert Lashin, president of Houle Electric of Burnaby, the largest electrical contractor in BC, added contractors that aren't familiar with P3s are the most likely to be opposed to them.

"What I've found in BC, there are small and medium general contractors that have been opposed to P3s, but find themselves in the role of subcontractor doing more concrete work than they would have done as a general contractor.

Cooper said the industry's message to the government on P3s is "we want to work with you." Contractors have to adapt to the new P3 model to be successful.

Saskatchewan power station to undergo expansion

Journal of Commerce - SaskPower has started construction on a \$514 million expansion project at the Queen Elizabeth Power Station in Saskatoon, which will add enough capacity to power an additional 205,000 homes.

The project will see the "D" Plant at the natural gas facility converted from simple cycle to combined cycle, which are 10-15 per cent more efficient than simple cycle gas turbines.

Simple cycle gas turbines generate electricity by turning the turbine using hot gas produced during the combustion process.

This type of electricity generation is best for meeting peak loads, such as hotter periods in the summer or colder periods in the winter. The exhaust air from a combustion turbine is typically very hot (450-600°C) and contains useful energy.

Large-scale systems will often add a cycle that converts the heat of the combustion turbine exhaust to create steam, which can be used in a secondary steam turbine generator.

Site construction began in late September and is expected to be complete by July 2015. The new plant will be commissioned in September 2015.

The station was officially commissioned in 1959, and has a net capacity of 430 megawatts (MW). After the expansion, an additional 205 MW will be added.



Saskatoon begins riverbank slope remediation

Journal of Commerce - City of Saskatoon crews have started construction work to remediate the riverbank slope along Saskatchewan Crescent between 15th Street and 16th Street.

"The solution designed will allow the city to preserve and protect our important roadway and riverbank assets and will involve a deep excavation of the roadway to install a pipe to reduce groundwater levels," said Andrew Hildebrandt, P.Eng., storm water utility manager with the City of Saskatoon.

"Crews will also install light weight, high-density foam that will support the roadway but lighten the load on the slope.

The work has been designed to minimize the environmental impact to trees and greenery around the riverbank.

This section of roadway was closed in June 2012, when it was discovered that it had begun to slide toward the river.

Geotechnical tests determined the slope failure was naturally occurring. The causes of the failure were the

steep incline of the riverbank, the weight of the soil and groundwater levels. The project will cost \$1.26 million and is expected to be completed, including road restoration, by November 2013.

Morguard begins construction at GTH

Area Development Online - Morguard Investments Ltd. has begun construction of its TransLink Logistics Centre, a multi-tenant industrial premises at Regina's Global Transportation Hub (GTH). Last spring, the GTH and Morguard signed an agreement for Morguard to build and lease world-class facilities for the transportation and distribution sector.

Morguard has completed detailed design plans for four new buildings. Construction is now under way by PCL for two of the four buildings targeted for completion in May 2014. Floor plans range from 60,000 to 82,000 square feet with a build to suit option of up to 1 million square feet.

The start of this project makes Morguard the third company to join the GTH in 2013 following the Emterra Group and a new Saskatchewan Liquor and Gaming warehouse. They join Loblaw, Canadian Pacific Rail and Consolidated Fastfrate at the 1,700-acre facility.

Sask. sees \$293M of construction in month

Regina Leader-Post - Building permit values in Saskatchewan totalled \$293 million in September, up 6 per cent from \$276.3 million in August, but down 2.6 per cent from \$300.8 million in September 2012, Statistics Canada said.

Residential construction remained solid with \$181.9 million in permits issued, up 8 per cent from \$168.5 million in August and up 6.7 per cent from \$170.5 million in September last year.

However, non-residential construction, including commercial, industrial, government and institutional building projects, performed less strongly, with \$111 million in permits issued in September, up three per cent increase from \$107.8 million in August, but a 14.8 per cent drop from \$130.3 million in September 2012.

Statistics Canada says Canadian municipalities issued \$6.5 billion worth of building permits in September, up 1.7 per cent from August.

The agency says this was the seventh monthly advance since the beginning of the year.

The September increase came from the residential sector, mainly in Alberta and Quebec.

MINING



Father-daughter diamond explorers do it again

WalesOnline.com - He is the rugby-loving Welshman who became a billionaire diamond hunter and she is the daughter who followed in her father's footsteps, successfully exploring for diamonds in Canada's frozen north.

Almost 20 years ago, Swansea-born Gren Thomas, 72, and his 46-year-old daughter Eira (aptly, Welsh for snow) discovered the huge Diavik diamond field in the tundra of Canada's Northwest Territories.

And now the pair have done it again. Their new company, North Arrow Minerals, excited investors by discovering a new diamond deposit near Saskatchewan.

It was in 1994 that Gren Thomas with his daughter Eira, dubbed "the Queen of Diamonds," along with her sled dog Thor, defied killer bears and bone-chilling cold to discover the lucrative Diavik diamond mine.

Both have teamed up again for North Arrow Minerals' Pikoo diamond mine project located approximately 140km east of La Ronge, Saskatchewan and 100km west of Flin Flon, Manitoba.

Shares in North Arrow Minerals rocketed more than 50 per cent after the explorer announced the results of drilling at its Pikoo diamond field.

What got investors excited was a 209.7kg sample from the company's Pikoo sampling program which uncovered 745 diamonds larger than the 0.106-millimetre sieve size, including 23 diamonds larger than the 0.85-mm sieve size (a major indicator of bigger and more diamonds in the area).

What was also good news for North Arrow Minerals was the finds were close to an all season road in the region, making the gems easier to transport.

Golden Band pours 2,200 oz from bulk sample

Canadian Mining Journal - The Greywacke North bulk sample that Golden Band Resources of Saskatoon took from the Greywacke Lake gold project 90 kilometres north of La Ronge has yielded 2,242.5 ounces of gold, the company announced.

Golden Band mined an 18,000-tonnes bulk sample and shipped it to the nearby Jolu mill.

The Greywacke Lake project is a joint venture of Saskatoon-based Golden Band and Vancouver's Masuparia Gold Corp.

SRC's new processing plant open for business

SRC - The Saskatchewan Research Council (SRC) officially opened its new mineral processing pilot plant in Saskatoon. The pilot plant, announced in the fall of 2012, is now fully operational and has been well received by the mining industry, already taking requests from clients in Saskatchewan and across Canada.

This pilot plant, coupled with SRC's existing mineral processing expertise, laboratory and testing facilities, including a new Quantitative Evaluation of Minerals by SCANNing electron microscopy (QEMSCAN®) service, will allow mining companies to access a full range of mineral processing services, making it more efficient, convenient and economical to do business.

The pilot plant will specifically support the development and demonstration of new and improved methods for processing minerals such as potash, uranium, gold, base metals, coal, oil sands and oil shale, along with being one of the few centres in Canada with an emphasis on rare earth minerals. By enabling the pilot-scale demonstration of new technologies, it will be able to assist companies increase mining yields and decrease costs.

Operating at a capacity of about 2 tonnes per day, the plant can process 400-500 tonnes per year for multiple clients and projects.

Funding of \$1.27-million was provided through the Canada-Saskatchewan Western Economic Partnership Agreement, with SRC providing \$930,000 to the project.

BHP Billiton, First Nations sign agreement

CTV News - An agreement signed between BHP Billiton and three First Nations is being called the first of its kind in southern Saskatchewan and for the province's potash industry.

The international mining giant's agreement with the Kawacatoose, Day Star and Muskowekwan First Nations outlines opportunities for employment, business and community development involving its Jansen potash project.

It also addresses the sharing of information important to environmental management practices.

BHP Billiton says the deal ensures the groups work together to maximize the benefits of the mine project currently under development at a site about 130 kilometres east of Saskatoon.

The mining company is spending \$3.8 billion on the Jansen project. The project's mine shafts are expected to be complete in 2016 with surface facilities following in 2017.

URANIUM AND NUCLEAR

Cameco gets uranium licences renewed for northern Saskatchewan mines

The Canadian Press - The Canadian Nuclear Safety Commission has renewed Cameco's uranium mine and mill-operating licences for three facilities in northern Saskatchewan.

The licences are valid for 10 years.

The commission says its staff will provide annual reports on operations at the Key Lake, McArthur River and Rabbit Lake operations.

The reports will be made available at public hearings with a special focus on environmental performance.

The decision to renew the licences follows three days of hearings at which an environmental group raised pollution concerns.

Cameco said the Sierra Club's allegations that it massively exceeded regulatory limits are false.

Saskatchewan uranium lands in China

Regina Leader-Post - Saskatchewan has made its first shipment of uranium to China since a supplementary protocol to the nearly 20-year-old Canada-China Nuclear Co-operation Agreement was signed by the federal government last year.

The first shipment of Saskatchewan uranium landed at Shanghai port to be used in the Chinese civilian nuclear industry. In spite of the fact that China has 28 nuclear power plants, none of them used Saskatchewan uranium because of the previous lack of a nuclear cooperation agreement.

"[The supplementary protocol to the Canada-China Nuclear Co-operation Agreement] is in full accordance with Canada's long-standing nuclear non-proliferation policies and obligations and will ensure that Canadian-supplied uranium is being used in China's nuclear program strictly for peaceful, civilian purposes," the federal government said last year.

Early estimates suggest that the nuclear co-operation agreement could lead to \$3 billion in Saskatchewan uranium sales over the next decade into the Chinese market.

84th Annual Meeting

Growth and Diversity

May 1-3, 2014

Delta Bessborough, Saskatoon

Thursday May 1

- Evening Welcome Event

Friday May 2

- Professional Development Streams and Luncheon
- President's Reception

Saturday May 3

- Business Meeting
- Partners Program
- Youth Science Day
- Volunteer Luncheon
- Awards Banquet

We see more.



Calendar of Events



SES Christmas Mixer

December 11, 2013
Boffin's Restaurant in the Atrium Building,
Innovation Place
www.saskatoonengineers.com

SEIMA Conference: Air Quality in Saskatchewan

January 17, 2014, Saskatoon, SK
www.seima.sk.ca

CSCE Saskatoon Section Luncheon Series Canadian Naturalistic Driving Study Research Project

January 21, 2014, Saskatoon, SK
www.cscsaskatoon.ca/

Professional Development Days

January 23-24, 2014, Saskatoon, SK
www.ces.sk.ca

Connecting Human Resources with Your Bottom Line Conference

January 27, 2014, Regina, SK
www.apegs.sk.ca

CSCE Saskatoon Section Luncheon Series:

Supertanks in Martensville

February 19, Saskatoon, SK
www.cscsaskatoon.ca

International Conference on Stormwater and Urban Water Systems Modeling

Toronto, ON, February 26-27, 2014
www.chiwater.com/Training/Conferences

2014 Electrical Safety, Technical and Mega Projects Workshop

March 3-5, 2014, Calgary, AB
ieee.org/estmp

Spring Professional Practice Exam Registration Cut-off Date

March 14, 2014
www.apegs.sk.ca

Law and Ethics Seminar

April 25-26, Saskatoon, SK
www.apegs.sk.ca

APEGS Annual Meeting

May 2-3, 2014, Saskatoon, SK
www.apegs.sk.ca

2014 Canadian Conference on Electrical & Computer Engineering

May 5-8, 2014, Toronto, ON
ccece2014.org/index.html

CCWESTT Open Opportunities: Mentoring the Future

May 22 - 24, 2014, Regina, SK
www.ccwestt2014.ca

Water: What is the Future We Want?

June 2-4, 2014, Hamilton, ON
www.cwra.org/en/