

W. Margaret Jenn



Safety, production costs top '96

1996 is barely two months old and it's already shaping up as another ambitious year at Ontario Division workplaces with many innovative projects slated to cut spending and increase safety, productivity and teamwork.

A sampling of these Division-wide projects includes **Purchasing**, **Warehousing and Traffic's** continuing focus on Total Quality Improvement with such initiatives as vendor warehousing, vendor rationalization and Inco supplier advisory teams.

The department expects the Smelter warehouse mailboxes to be complete in 1996 giving its customers 24hour access to materials.

It will also pursue an electronic data interchange with suppliers and other large Northern Ontario companies.

Work will continue with Divisional Shops and various mine locations to salvage used parts for repair and re-use.

At the **Smelter**, 1996 initiatives are aimed at providing a safer workplace for employees, increasing the rate and reducing the cost of production and continuing initiatives to build teamwork and help people gain a greater understanding of their processes.

The 1996 safety goal is to reduce accident frequency by 33 per cent. To improve safety performance, Smelter employees will continue the safety workshop initiative started in 1995.

Planned are a series of process hazard reviews to ensure processes operate in the safest way possible. Jobs are done more safely when people have better access to current procedures and employees will work at putting procedures on the Smelter electronic information system in 1996.

The production goal for 1996 is to increase the smelting rate by five per cent and reduce the cost per pound of copper/nickel production by five per cent.

Several initiatives are planned for 1996, including equipment modifications and repairs, and developing technology to change the way the Smelter operates.

At Inco's Mississauga lab, plastic models of the furnace uptake are helping to explain solids' buildup and determine where after-burner oxygen *continued on page 2*



Employee invention eases heavy lifting

The final straw came when Tom Burton couldn't lift his grand-

managed to eliminate a lot of the heavy lifting jobs. This was one of the few left."

Tom Burton's steel cradle invention has eliminated one of the last heavy lifting jobs in the Plate Shop.

threw his back out at work.

Determined not to let it happen again, he took a pencil and paper and sketched a few ideas, then used scrap metal to fabricate a simple solution to one of the last heavy manual jobs left in the Plate Shop.

"Plate work used to involve a lot of bullwork," said Tom, who figures he's lifted and tugged at tons of heavy plate steel over 20 years as a plate worker. "Over the years we've Tom was referring to a fourwheeled overhead lifting device designed to move heavy materials in the shop. Constructed of heavy steel and known as a 'truck' to shop employees, the device travels along the base of an overhead I-beam, carrying chain blocks. The chain blocks are used to move heavy material by pulling the 'truck' along the beam.

"Pins wear, wheels get flat spots and roller bearings wear," said Tom. "So two of us have to crowd into a manlift from where the truck is lifted off the track onto the alreadycrowded manlift platform."

Tom's back pain began when he was lifting the 150pound device so a pin could be removed.

"Me and Don Demore have been doing this job for about 10 years now and every time we start we grumble that something has to be done to make it a little easier. Once the job is done, we forget about it until the next time."

Tom thinks that because the work comes up only three or four times a year, it tends to be overlooked. "I'm sure that if we had to do it every week we would have come up with a way to make it easier."

Not only is the truck heavy, but maneouvering it while crowded onto the platform makes the job even more difficult. "We tended to get in each other's way and often there were other tools on the platform that would get in the way as well."

His device is simplicity itself. A six-foot steel frame with a steel cradle for the truck at the top of the frame is lifted by a forklift (the base of the frame is made of square steel tubing sized to accept the forks on the fork lift) and the cradle takes the weight of the truck off the overhead beam. The pins are *continued on page 2*



Movement of supplies a challenge for McCreedy team

continued from page 1

This is the same haulage system going into Creighton Deep. The first \$1.6 million truck will arrive at McCreedy late this fall, the second expected in the spring of 1996. This summer, crews will start working to provide the necessary underground infrastructure — refuge stations, pump stations, explosives magazines and fuel storage.

"Everything's going fine," he added. "Our EPCM (Engineering Procurement and Construction Management) team's up and running. The project's being managed from a trailer complex at the Coleman Mine. Engineering and procurement staff have been set up. Our construction management's been set up.

"The uniqueness about the whole project is that to mine the ore, we have to go down 3,400 feet, go in about 3,600 feet to the haulage ramp, go 4,500 feet to the main ore body and then another 2,500 feet to the 153 ore body. One of our big challenges will be the logistics of moving men, supplies and ore in and out."

He said the team's studying various vehicles and modes of transport, including containerization of supplies to solve the problem.

"All of the ore comes out via Coleman which has adequate hoisting capacity."

At the same time, they recognize they'll have to develop one of the best and most efficient roadways underground to handle the traffic. They're looking around the world for answers.

"We'll have to be very efficient. We will have to develop and maintain one of the best roadways of any underground mine. It just has to be."

The Inco team also includes mine engineer Bruce Goard, development co-ordinator Rick Godin, project engineer Ed Shillemore, geologist Harold Granthien, and mine planners Tom Christiansen and Trevor Courchesne.



Inco crews are driving drifts from the Levack Mine and from the Lower Coleman Mine to McCreedy East Mine. The first ore from the main ore body is expected in the spring of 1996.



Coleman employees



Inco wishes the Lively team good luck in the Canada First Robotics Competition in Brampton, Feb. 24 - 26. Team members from left are: (bottom row) Jason Rose, Jason Sanmiya, Eric Binmore and Jason Vergunst; (second row) Jennifer Wiseman, Shannon Murphy, Laurie Beynon and Heather Beynon; (third row) Chris Fosten, Dan Cunningham, Hansel Huang and Brad Hreljac; (back row) Franz Kirk, James Moorhouse and Brad King. Inco is sponsoring the team and Inco employees are serving as mentors for the Robotics project.

raise \$2,000

oleman Mine employees have some exciting new events to mark in their 1995 calendars.

A fishing tournament, midnight bowl and spring dance are in the works, thanks to the newly-formed Employees' Association.

The association was formed to increase employee morale and increase teamwork in the workplace through the staging of various events, said Carol Walton, a member of the group. One of the association's objectives is to provide activities that everyone can participate in.

The Employees' Association is raising money through 50/50 draws which have proven to be a huge success. Some of the money raised goes towards fruit baskets and flowers for hospitalized employees and toys for their children.

"The response has been great," said Carol. "We welcome all suggestions the employees may have."

Not quite a year old, the group currently has \$2,000 in its fund for future activities.

Joining Carol on the Employees' Association are Marcel Demers, Norm MacKay, Monica Delorme, Andy Besserer, Guy Pichette, Bob Carriere, Rod Burns, Robert Assabgui and Richard Bangs.

Discount cards from Disney Planning a winter vacation in Florida?

Don't forget to drop by Public Affairs for your Disney World discount cards. Walt Disney World is offering Inco employees and pensioners the opportunity to join its Magic Kingdom Club. Membership entitles you to various discounts for different events at Disney Theme Parks worldwide, at Disney Stores, and on other travel-related offers. There is no fee for the card.

Money-saving benefits of the Magic Kingdom Club Card include discounts on hotel accommodations, vacation packages, car rentals and entrance fees.

Pick up your membership card from Diane Flynn in Public Affairs at the Copper Cliff General Office or by calling 682-5425.

New hires heap praise on Inco training



Often used during first aid instruction, this skeleton wouldn't remain in the closet thanks to this group of new employees who brought a sense of humor along with their skills to Inco. From left to right are Dan Kirkey, Harold Nesbitt, Andrew Hastie, 'Bones', Bob McKerral and Robert Elliott. Bob, a seasoned Inco employee, was sitting in on the course.



Allan Beange practices applying abdominal pressure to clear a breathing passage on 'victim' Paul Kasulak.

By April Lilley and Kathy Foisey

nientation to Allan Beange used to mean showing up on Monday and being assigned to the equipment to be fixed.

"There wasn't an hour, let alone a week, to ensure you had even the most basic of introduction to the workplace," said the 34-yearold electrician. "What Inco is doing here is a great idea. It prepares you much better for the job."

For this new employee, Inco's week-long orientation course is a pleasant surprise from what he's seen in other companies.

A native of Sudbury, Allan had to move south in 1980 to get a job. "Nobody was hiring here," he said, "but it was always my intention to come back when there was work. Both my wife and I have our families here. We want to raise our kids here."

His first attempt to hire on at Inco was in the late 1980s. Four years ago, the Beanges found work in Sudbury and moved back. Although their jobs were well-paying with good benefits, he never gave up on Inco. "There's security here and room for advancement."





A stretcher made of a blanket and two poles tests the skills of the rescuers as well as the trust of the 'victim'.

Corporate/Division Story

Plant and Protection

Week in ReviewFeedback

"you get hired, then the next day you're underground," he said.

The first aid session was a

When he got the job, he felt proud.

"When you tell people you were hired by Inco, everybody says 'congratulations.' I think that tells it all. Inco people are proud of what they do," he said, taking a break from the orientation course with 12 other new hires.

"Years ago the introductory training for new employees might have seemed limited," said **Tom Tripp** of the Quality and Human Resource Development department, "but it was quite adequate New employee Wayne Perrier watches and listens for life-signs as he practices resuscitation skills.

and practical for the equipment used at the time."

That's all changed.

Over the years, as the use of technology has increased in the workplace, the need for specialized education and training has become mandatory, Tom said.

"Quality has to be woven into the fabric of training throughout the Ontario Division."

The introduction of these concepts as well as other information is packed into the week of orientation. Of the highest priority in the Division is safety. The new employees' safety introduction is

intensive.

All new hires must attend a one-week training session that addresses these issues:

Overview

- First Aid Certification
- Quality
- Benefits
- Leader 2001
- Safety
- Payroll
- Employee Relations
- WHMIS
- Occupational Monitoring
- Energy
- Back Care
- Union Hall
- •Occupational Medicine Overview
- Staff Policies/Programs

A Kirkland Lake native, Wayne Perrier is looking forward to working for Inco. Although he received his diploma in Civil Engineering from Cambrian College last December, Wayne will begin his career underground. "If you're going to be in engineering, it's a benefit to work underground for a couple of years," he said.

Wayne described his first few days of training as 'un-real'.

"That's the truth. They sure make you feel welcome," he added.

He's looking forward to working underground and feels comfortable and confident because of the training he has received at Inco. It's not like other places where highlight to him. Having taken first aid before coming to Inco, he was impressed with the "new and better ways of doing it."

New employee, Brian Chaumont, got a diploma in electronics from Sault Ste Marie College of Applied Arts and Technology. After two years of apprenticeship and trying to find a stable career in his field, he's been hired as an electrician at Stobie Mine.

"I'm glad to be on board," said Brian, who feels that he has much to offer the company. He said the training process was a very positive experience. "Everyone has made me feel welcome, as if I work here already," he said.



Big dollars in Inco scrap

By Suzy Dobinski

ith scrap steel prices at approximately \$150 (Cdn) a ton, selling Inco scrap is a lucrative and environmentally friendly business.

Approximately 30 truckloads of prepared scrap metal leave Inco's Sudbury District plants each month. These loads weigh about 25 tons, the majority of which are prepared and delivered to southern Ontario markets by Northland Iron and Metals Limited (NIM).

Storage areas for scrap and surplus material are called marshalling yards. Inco's marshalling yards are at Creighton, Stobie and the Copper Cliff Smelter. They also serve as preparation areas for ferrous and non-ferrous metal, said Bob Debrie, supervisor of Investment Recovery.

Preparing scrap means cutting it into two-foot lengths, either by shearing or burning with a torch, explained Bob. The scrap is then loaded onto trucks, scaled and hauled to markets down south or to NIM's yard for further preparation.

In addition to scrap steel, loads of copper, aluminum, manganese, stainless steel, electric motors, transformers and batteries are accumulated in the marshalling areas and also shipped to market.

Pure, shiny copper is recycled through Inco's own copper circuit at Copper Cliff Refining.

Non-ferrous scrap is sold to the highest bidder whom Inco feels will best be able to dispose of or utilize the material. This material is sold as is, where is and buyers are responsible for coming in and loading the metals.

"For many years we have enjoyed a very strong working relationship with NIM," said Bob. "They've gone above and beyond what is expected of them in our contract.

"For example, a certain mount of muck accomparequested by different mills and customers," she said. "In any one marshalling yard we may find stainless steel, copper, lead, aluminum — just about everything. And there's a market for all of it."

Scrap and surplus material have many uses, said Bob.

Surplus vehicles from the Ontario Division fleet are made available to Sudbury area contractors and Inco employees. Alexander Centre Industries buys slag from Inco to make Dry Pack for use in road beds and driveways and also supplies a lot to Canadian Pacific (CP) and Canadian National (CN) for use as rail ballast. Hoist ropes are bought by P and B Metals of New Liskeard, chopped into two-foot pieces and sold as scrap metal.

Last October, 60,000 pounds of scrap rail was lifted at no cost to Inco and the company received market value for the scrap steel. Several projects of this nature are completed during the year, said Bob.

Companies worldwide come to inco to buy surplus material," he said. "A lot of material goes to the Third World where it is used for manufacturing."

Surplus equipment sales are ongoing, both internally and externally. Investment Recovery is currently negotiating the sale of an Ahlstrom cooling shaft from the Copper Cliff Smelter.

'A good majority of the scrap is bought for use in the same type of industry," said Bob. "There is a value to all scrap it's valuable to someone.

"There is nothing that I can't sell. All scrap is sold, whether as is, or cut into two foot lengths."

Inco recently sold almost \$18,000 worth of equipment from the Agricultural department.

Bob represents Investment Recovery on the Slag Disposal Committee and the Plant Decommissioning Committees. He has also served as a resource to the Division's Scrap in the Muck Teams.

Investment Recovery will soon have access to a worldwide, computer network called Trace Trak. This network is available for those who want to buy or sell material.



metal with ease.





nies the used rods and balls that come to our marshalling yards from Clarabelle Mill. NIM removes the rods and balls for their own purpose, screens the muck and returns it to Clarabelle Mill where it is put through the circuit again.

"It's a win-win situation," he said. "We're keeping material that is no longer useful to us out of the landfill sites and making money on it by selling it to NIM. They in turn make money by separating and preparing the metals for whatever market they can find."

Those markets, said Erica Greenspoon, vice-president of NIM, are varied.

"We separate the different metals and prepare them according to the specifications

Investment Recovery supervisor Bob Debrie is dwarfed by a pile of scrap metal in the Smelter marshalling yard.





Team leader Ivan Thurlow monitors computer and video screens in the bulk circuit control room.



Ron Benoit views computer data in the tapper's control booth.

noticeable change in the atmosphere" around the bulk circuit.

"We used to have three team leaders here — one in the control room, one at the converters and one at the furnaces," said Ivan. "Today, we have one person in the control room and another for both the converters and the furnaces.

"It's much more efficient, but without the change in attitude around here it would never have been possible."

Furnace operator Bryan



Grooms said his job is much improved - not because of new equipment but because of improvements in communications.

'We have computer terminals where we work now that enable us to check what's going on at the converters," said Bryan. "We can see for ourselves if there are potential problems heading our way and we can do something about it before it happens.'

Bryan said operators now have the ability to call the control room and ask them to make adjustments that make their jobs more effective. "This way you have input, a say in what goes on. You can also get a pretty good idea of where you fit into the picture. You can see that what you do makes a big differbining new technology with improved cooperation, communications and training is converter operator Darren Prokulevich.

What Darren is able to do today, in four short years at Inco, would have been impossible just a few years ago.

Just ask co-worker Andy Contant, a converter operator since 1982.

"The computers make it much easier now," said Andy. "At one time you had to judge the color of the flame and the gases to estimate the temperature. That took a lot of practice. We've come a long way." And improvements to the

bulk circuit are continuing.

Ten operators were trained to order all their shift's warehouse stock supplies and the furnace trainer was relocated from the Training department to on-site at the furnace area.

Among the more exciting initiatives are the information sessions furnace operators are holding to help their 'suppliers' learn more about furnace operations.

Late last year, furnace operators began making bimonthly presentations on the operation of flash furnace process systems to the maintenance mechanics who repair equipment in those systems, so the mechanics would understand what the equipment should do and how important certain aspects of the operation are.

In December, furnace operator Trevor Henry and team leader Rick Melanson held an information session at Copper Cliff Mill where they described the Smelter's feed preparation, drying processes and equipment to a group of 11 mill operators and supervisors.

Trevor and Rick showed a short video of the process and talked about some of the challenges they face when feed is wet.

"After the presentation, people openly exchanged ideas about operating and communications practices that would be better for both the Mills and the Smelter,' said Don. "Everybody agreed that Mills operators should make a presentation about their process to Smelter operators." Ivan summed it up by saying he had seen "a definite change in people" around the Smelter's bulk circuit. "In a way, there's really no choice,' he said. "The new sense of teamwork and the improvement in communications and training had to come if we were all going to get our work done." Team leader Buck Vaillancourt, one of the original shift facilitators, agrees. "We'ye made some real progress here," he said. "We're looking at redoubling our efforts now and keeping the fires burning."

Furnace operator Ron Benoit lances the furnace tapping hole.

ence."

Bryan was part of a team examining small explosions on the slag skimming launders — the single chute coming out of each furnace which carries molten slag to waiting slag pots.

The team made checksheets, and operators on all four shifts recorded process measurements and collected samples.

"We found out that the explosions most often occurred when matte in the slag hit the cold launder," said Bryan. The problem was fixed by redesigning the launder and better controlling the build-up on the furnace bottom.

Perhaps the best example of the effectiveness of com-

Sports Sports Sports Sports Sports Sports Spo Serving first aid on Sudbury slopes



Creighton Mine's Mike Dudar glides to the bottom of the Adanac Ski Hill.



Although the photo is in black and white, this trio of Ski Patrol members are easy to spot on the hill with their distinctive yellow and blue jackets. From rear are Graham Boivin, Olgerts Plavins and Mike Dudar.



Mike Dudar and Olgerts Plavins get a bird's-eye view of happenings at Adanac Ski Hill as they ride the new chair-lift.



Inco members of the Canadian Ski Patrol, from left, are (kneeling) Rick Coupal and Ron Halas, and in rear, from left, Graham Boivin, Olgerts Plavins and Mike Dudar.







The Canadian Ski Patrol is celebrating its 50th anniversary in 1995.

ike Dudar never goes anywhere without bis "bum bag".

It's in his car when he reports for work as a geologist at Creighton Mine, and around his waist on the hills and trails around Sudbury where he serves as a member of the Canadian Ski Patrol.

The contents of the bag and the knowledge to use them are key attractions of an organization which counts several Inco employees and pensioners among its volunteer ranks.

"The bum bag is similar to what a Plant Protection Officer would bring underground in the event of an injury," said Mike, a nine-year veteran of Inco and two-year member of the ski patrol.

"It contains splints, triangular bandages, gauze, finger splints — whatever you might need to treat basic injuries. All other safety gear is kept at the hill." A love of skiing and a desire to help others are the common threads binding members of the ski patrol, said Mike, patrol leader at the Onaping Ski Hill and an occasional user of the nordic trails in Naughton. "The Canadian Ski Patrol is a non-profit, charitable organization much like the St. John Ambulance, except that our training is specialized to provide first aid to sports injuries," he said. "We've probably all come across situations where first aid has been required and we weren't able to provide it. The training regimen of the Canadian Ski Patrol provides us with the ability to handle almost any situation."

In addition to requiring a high level of skiing ability, Canadian Ski Patrol volunteers are taught first aid, CPR and accident site management during 80 hours of classroom training and two days of practical field sessions. Specialized on-hill and nordic training begins once the snow falls. Volunteers cannot be accepted without passing written, practical and on-hill exams.

The training is rigorous and thorough and the skills are entirely portable, said Mike.

"You take your first aid skills with you everywhere," he said. "You have them on the hill, at home, on the job or walking down the street. The whole training process makes a person very with a twisted knee.

The two rookie ski patrol members were able to handle the situation by applying the skills they learned in training.

"People are happy to see us arrive at the scene of an accident and we're happy to be in a position to provide assistance," said Graham. "On the hills, we're dealing with skiers who range in age from three to 70 and you never know when you'll be called upon to use the first aid skills you've been taught."

Ron points to the camaraderie among patrol members as the quality that drew him to their ranks — and the one that keeps him there.

"That's how I got involved — by talking to ski patrollers as a member of the skiing public," he said. "The camaraderie is great and the veter-



In an injury and retrieval exercise, Barbara Courtin, plays the victim while Darren St. Amour, Graham Boivin, Olgerts Plavins and Mike Dudar administer first aid. In the first photo, a backboard and blanket are used to keep the victim warm while a splint is applied to immobilize the fractured leg. The victim is then carefully picked up and moved to an emergency toboggan — used to transport injured skiers off the hill. safety-conscious."

Most patrollers are on the slopes three or four times a month, said Mike, and as a group they've seen it all from fractures and contusions to neck and spinal injuries.

"When someone is down we always treat it as a worstcase scenario, especially where neck, head or spinal injuries are involved," he said. "The most common injuries involve knees and thumbs — the latter occurring when a skier falls forward wrenching the thumb back."

Graham Boivin, also a Creighton geologist, and Ron Halas, a mines engineering supervisor at Stobie, encountered their first injury of any sort earlier this month when a skier went down at Onaping raderie is great and the veterans really make you feel welcome.

"To be a successful ski patroller you must be willing to donate your time, willing to help others and have fun doing it."

Other Inco employees with the Canadian Ski Patrol are Richard Coupal of Divisional Shops and Trevor Courchesne of McCreedy East. Inco pensioners in the patrol include Dieter Schoenfeld, formerly of General Engineering, and Olgerts Plavins, a retired South Mine maintenance mechanic.

Anyone interested in joining the Canadian Ski Patrol can call Barbara Courtin, vicepresident of the Algonquin Zone, at 522-8897 or Mike Dudar at 692-9065.

Quality key to nickel foam process

Clive.

The foam moves between a

series of heaters that decom-

pose the nickel carbonyl that

acts like a glue for depositing

the foam but must be elimi-

veloped from a laboratory pi-

lot plant had to be updated

for the full-scale plant," said

changes. "Everybody was in-

volved, from our own people

on the shop floor to Engineer-

ing, Marketing, research and

"The original concept de-

A project team was set up to make all the necessary

nated in the final product.



Foam operator Gerry Schroeder and refining facilitator Clive Lewis check out the instrumentation in the foam unit control room.

live Lewis beamed as he watched the Nickel Refinery's nickel foam production line kick into high gear at triple the previous output and with unsurpassed quality.

"Success is a family, failure is an orphan," mused the project's program manager and Nickel Refinery refining facilitator. "Work on the foam update project has been kind of a family affair. It was the cooperative effort of not only our people here, but people from other disciplines in the company that led to our success."

Foam operator **Jim McLaren** agrees. "I figure I had a part in bringing this about. We knew it would work. We had confidence in our ability to do it."

A new foam electrode substrate designed for re-

the line down at the first sign of imperfections. Previously, monitoring of the product was done by random sampling that could easily miss imperfections.

An updated and more sophisticated control system was installed that tripled the previous monthly production of foam.

"It's a sophisticated process in a sophisticated refinery," said Clive, "so a lot of development work was ongoing in order to perfect the foam process."

One of the improvements involved the heater system.

development at the J. Roy Gordon Laboratory and even outside consultants."

Other improvements involved increasing the capacity of the sintering furnace and the introduction of a slitting line that cuts the final foam product into sizes dictated by the customer.

"I think the success of this project is a direct reflection on the amount of cooperation and teamwork we experienced," said Clive. "The end result was a turnkey operation. We started it up and it worked."



Value-Added Products production assistant Bert Hayden and foam operator Jim McLaren examine the foam unit's heater system. Changes to the system were among the improvements made to make the purest product possible.

Nickel foam product of the highest quality possible is When the key was turned late last year, the project was finished on time, on budget and using hazard operations review procedures every step of the way.

"Our nickel process operators and maintenance people as well as many others were instrumental in getting us up and running," said Clive. For Jim, the experience

For Jim, the experience was rewarding. "They (management) listened to our input. We were involved in the meetings where we let them know what changes we'd like to see to improve the process. Sometimes managers and engineers can't know what we have to deal with on the shop floor, yet we're the first people to see any problems crop up. When you have input, the job becomes much more rewarding."

"The changes that were made here were not only hightech solutions," said Clive. "We relied heavily on the experience and skill of our people."

Perhaps most significant in Clive's mind was the safety record. "This was all new stuff so safety was the top priority. By careful hazard operations reviews at every turn, we didn't have a single incident."

Also smiling these days is Wayne Leavoy, the refinery's superintendent of Value Added Products, who often deals directly with the customer.

"The quality control built into the production gives us a lot of confidence. We can examine quality without destroying the product. Sampling is a hit and miss process. Continuous analysis is unique to our operation here and I think it will give us a very good edge with our customers. We 'can show them a continuous quality read-out of what they are buying."



chargeable batteries, and the process for its manufacture, were first developed by scientists at Inco's J. Roy Gordon Research Laboratory in Mississauga. Based on that research, a prototype commercial production facility used to generate design data for the next generation of units was built at the Ontario Division's Nickel Refinery in 1991.

Last year, the next phase of the project involved upgrading the process to hit a target of 60,000 square meters of foam product annually. A sophisticated analyzer was installed so the foam would meet the refinery's reputation for providing the purest products in the world.

The on-line analyzer continuously monitors the product as it is produced and shuts



Value-Added Products superintendent Wayne Leavoy and J. Roy Gordon Research Laboratory research engineer Eric Wasmund take a look at the nondestructive foam analyzer. ready to be shipped to customers.



The sintering furnace was upgraded to increase the volume of foam that passes through it.

Safety and planning at work on construction job

By Cory McPhee

'hen you're dealing with 31 tons you don't fool around. That, said industrial mechanic Pat Matthews, is why safety was the number one consideration for an Inco Construction crew charged with installing a massive heater house over a fresh air intake fan behind North Mine.

On a frosty January morning, the crew braved winter's cool conditions on surface to help bring heat to those working underground.

The heater house installation is part of a larger project to meet the ventilation needs necessary for North Mine to access new ore bodies. Two booster fans were installed on the 1,400-foot level underaround and a return air exhaust fan was installed a short distance past the tailings trestle on the mine side of Godfrey Drive.

But it was the heater house — 30 feet long, 20 feet wide and weighing 31 tons - that concerned the construction crew the most.

"That was the heaviest aspect of the job and the one we worried about the most but it went without a hitch," said Pat. "Safety was our number one concern because of the sheer size of the installation, but the crew had input into the process and any safety concerns raised were addressed very quickly. There was good communication all the way around."

Inco Construction's portion of the total ventilation project will cost around \$1 million and is about 95 per cent complete, said planner Doug Fosten.

"It's a large job that required a fair bit of organization and would have been contracted out in the past. But where a contractor would have sublet the various job requirements, we, in Inco Construction, did everything except fabricate the heater house.

"All the forming, the concrete work, the steel erection, electrical work and installation of the heater house was done by our own people - in close coordination with General Engineering and with terrific cooperation from North Mine. It's much better to have Inco, the company, pay \$1 million to Inco Construction than to an outside contractor.'





Industrial mechanic Peter Suomu and foreman Bryson Gray discuss the final descent of the heater house.



The heater house was delivered to the North Mine site on the back of a large flat-bed truck. Inside the structure are two large gas burners which heat the outside air before it is taken underground.

A crane was used to move the heater house from the truck to its final resting place atop the fresh air intake fan. A great deal of planning went into the process to ensure that everything went smoothly and safely, said Doug.

"In order to support the weight of the heater house for



With the heater house inches away from its final resting place, the Inco Construction crew looks on in interest. From left are Kevin Sarlo, Pat Matthews, Bryson Gray and Peter Suomu.

proper positioning we had to erect temporary supports of steel girders and lumber while keeping safety our chief priority," he said. "Those temporary supports had to be just the right height to allow final tie-in to the permanent steel supports. The final tie-ins were done once the heater house was in position and safely supported.

'We had a budget that we stuck to and a schedule that we stuck to, and the quality of the job was second to none."

we want and the second second second

Inco Construction is involved in various construction projects at plants and mines across the Division. Its workforce includes industrial mechanics, welders and electricians.

According to Pat, the North Mine ventilation project is the type of large job they'd like to see more often.

"We shine on major jobs like this and it's the kind of work we like to get," he said. "Our crews are blended very well, with a mixture of youth, experience and the different

skills needed to complement each other.

"We take a lot of pride in our work and we always look out for each other. There's certainly pride involved in seeing a major job like this through from start to finish. A goal was set and it was met. It was a very successful job."

Contributing to that success was the lead time given Inco Construction on the project so they were able to set up and plan the job to do it as good as anyone else, said su-



Planning began in August and installations began in September at the three fan assembly locations.

"The job went according to plan with very few hitches,' said Ron. It's an example of teamwork paying off. The crew had very good ideas and we used them.

"It was done as efficiently, as quickly and to the same degree of quality as any outside contractor - and the money stays inside Inco."

Planner Doug Fosten watches carefully

the positioning of the heater house.



The 31-ton heater house is hoisted by crane from the back of a tractor trailer truck (top left) . . . raised just high enough to clear the fresh air fan assembly (bottom left) . . . centred over the fan (top right) . . . and gently lowered into position atop the temporary steel supports (bottom right).



130510

ALC: NAME

Pat Matthews gets up for a closer look as he guides the heater house into proper position for final tie-in to the permanent steel supports.





Welder Wayne Mohammed, left, and industrial mechanic Pat Matthews bolt the bottom beam of the heater house to its steel support structure.

Team effort spells success

s a contra para contra contra

The North Mine heater house installation could not have been accomplished without teamwork, said those involved. And any team is only as good as its players. Here are the Inco Construction employees involved in the installation:

Rolly Boudreau Doug Fosten Bryson Gray Mike Martin Pat Matthews Wayne Mohammed Kevin Sarlo Dan Serre Peter Suomu Welder Planner Foreman Industrial Mechanic Industrial Mechanic Industrial Mechanic Industrial Mechanic Industrial Mechanic

- -

Digging Deep: A team approach to disability management helps Inco unearth big savings

(The following article appeared in the January 1996 issue of Benefits Canada and is reprinted here with permission)

r. Bob Francis was fresh on the job in 1986 as Inco Limited's medical director when he opened one of his first letters. A market slump had forced the world's largest nickel producer, located in Sudbury, Ont., to look for cracks in its operation: what they found was a gorge of disability problems and Francis' company, Medcan Health Management Inc., was hired to fix it.

But the doctor faced another obstacle in administering his cure: the 4,700 members of the United Steelworkers of America (USWA), Local 6500. Wanting to involve the union in the process, Francis met with Ron MacDonald, then president of the local. Distrustful of anything initiated by Inco's management, the tense meeting was followed by correspondence from MacDonald to Francis containing just two sentences: "F... off. Strong letter to follow."

Francis was on notice, but not surprised by the thorny welcome mat rolled out by the USWA - one of the strongest labor muscles in North America. These hourlyrated employees, particularly the miners, tend to work hard and play even harder, especially when it comes to labor relations.

"We've had a very rocky past," says Dave Campbell, now president of Local 6500. He rhymes off the dates of strikes mounted by the

1975, 1978 and 1982. They were dirty fights that left members leery of management including its medical department. Co-mingled with Human Resources, the union perceived the medical department as nothing more than a management arm with a mission to weed out troublesome employees, not help them get back to work.

"To me it's part of do-

ing business in these environments," adds Francis, in his Torontobased Medcan head office.

Inco's Ontario Division is a town within the city of Sudbury that comprises some 6,370 employees sprawled over 10 active mines including Creighton, which at $7,\overline{4}00$ feet is the deepest hard-rock mine in North America. There are another two mines in development, a central mill, smelter, two refineries and a host of other administrative areas. It's a 24-hour, seven-day operation that is almost entirely dependent on

the daily price of nickel. claims were being On an average day in 1987, there were some 350 employees off on ance Co. USWA in his 30 years Workers' Compensation For every aay ' an emwith Inco: 1966, 1969, because of injuries that ployee was off, it cost the company's day-to-

occurred on the job; nearly two-thirds were off at least 90 days. At the end of the year, those lost days added up to nearly 76,000.

On the private insurer side, Inco found in 1991 another 1,877 claims by employees amounting to

Inco approximately \$1,000. This is a price tag that didn't even include the hidden costs of replacement workers, lost production time, re-

training and poor employee morale. То

get a

grip

0 n day operations:

Establish a direct reporting relationship between the medical director and the highest person at Inco's Ontario Division, President Jim Ashcroft:

Be a true employee advocate group and back it up with a committee that meets regularly to review cases (committee comprised of representatives from Occupational Medicine, the Workers' Compensation Board (WCB), the union and the insurance carrier);

Treat all employee injuries equally (whether they occurred on or off the job) and quickly (preferably within 24 hours) and:

> Ensure swift access to supplementary services such as physiotherapy. Fast forward to the fall of 1995: t w o senior

objective - to be an employee advocate. The union has a permanent place on the committee that meets weekly to review specific cases. This team works hard to return individual employees to work after an injury. For those employees unable to perform the same job, Inco places them in a position at their Modified Work Center where employees add value by cleaning and refurbishing, for example, all of Inco's fire extinguishers — a task that used to be outsourced. But that's a last resort. The first priority is to integrate the employee back into a modified position at his or her old work site.

able to play out its other

"The most important thing for us in this whole exercise is that we don't have countless numbers of people sitting out there for endless amounts of time vegetating," says Conley. "We used to have a waiting list of hundreds of people to come back to work from disabilities. We don't have anywhere close to that number now."

In fact, this past November, just 29 Inco employees were on disability, compared to 350 in 1987. Those em-

ployees are also off for fewer days: an average of 13 in 1995 compared to 119 when Dr. Francis began.

With a time-sensitive structure established (24 hours or sooner), the doctor needed to ensure Inco's employees had access to the services that could help them heal quickly. Typically, most of Inco's employees were on the bottom of waiting lists for services such as physiotherapy because the WCB only pays 50 per cent of the reqular treatment cost. Francis asked Inco to pay the full market rate for physiotherapy to get employees in faster and, in turn, he said he could entice new physiotherapy clinics to open their doors in Sudbury. (When he began, there was only one supplier.) Why didn't Inco just create their own physio clinic? Again, says Francis, it's a matter of maintaining an armslength relationship with the company, thereby creating a credible climate for employees. "The company actually put their money where their mouth was, says Francis. "And that gives a tremendous lever towards the union to demonstrate that Inco is a caring employer."

77.919 days lost in total. These

paid by 'metro' or the Metropolitan Life Insur-

these slippery statistics, Dr. Francis devised the following strategy:

A TEAM APPROACH SOLVES INCO'S DI

Carve the Occupational Medicine Department away from Inco and have it run by Medcan to build an armslength relationship with

managers, (including Pam Tobin, the superintendent of the Occupational Medicine Department) and three union reps are having lunch together at Inco's Copper Cliff Club — a stately, turn-of-the-century building in Sudbury. Everybody's talking about the evolution of the disability program.

	Chipping away a	at the problem	Ser lar
Inco Ltd. has mined some spark	ling statistics in its qua	est to conquer hard-core numbers of disab	ility claims
Workers Compensation Board (WCB) claims:		Metropolitan Life Insurance Co. disability	-related claim
- Total number of cases in 1987	350	• Premium ner employes in 1001*	
 Year-to-date as of Nov. 1995 	29	Premium per employee in 1001	31,003
 Total number of days lost to 		Projected for 1005	5613
disability in 1987	75 734	- Linkerine (nr. 1999	\$499
Projected for 1995	11 345	a Tatal number of status is 1001	
220500000000000000000000000000000000000	11,040	- Total manual of claims in 1991	1,877
 Average number of days off neg claim 	and a state of the	* rear-to-date as of Nov. 1995	828
in 1987	110		
- Year-to-date as of Sent 1005	118	 Total number of days lost in 1991 	77,919
Total to date as at appl. 1930	18	* Year-to-date as of Nov. 1995	24,698
• WCB assessment in 1987	990 million		
Projected for 1995	CIO E million	 Average number of days per claim 	
Trojector for 1555	219.5 million	im 1991	42
· WCR New Experimental Experiment		 Tear-to-date as of Nov. 1995 	30
Rating (VCD) ashata is 1004			
nating (NCCh) resulte in 1994	53.9 million	See Loss (1, 7) (1, 1) (1, 1) (1, 1) (1, 1)	11:45109
 wanimum expected in 1995 	\$7.2 million	*Earliest available statistics	

LACK OF TRUST "We've had a lot of growing pains," says Kevin Conley, a USWA trustee and compensation officer. "Our biggest thing was to get our membership to buy into it and Bob (Francis) couldn't do that without us. For example, members were wary of the old Occupational Medicine Department --- which had ties to Human Resources - because they believed socalled confidential medical records were being shared with managers. When Francis' team asked employees to fill out routine medical waivers, the calls flooded into the union hall, questioning Medcan's motives. Says Conley: "It was still seen as Inco."

But as confidence was replenished, Medcan was

Inco phone book bigger, better, brighter

et your fingers do the walking through the new and improved internal telephone directory.

The 1995 Inco phone book is hot off the press and Office Services and Communications supervisor Mary Sitko is pleased to announce the return of the 'white pages'.

The hierarchical portion of the old binder format directory was the most requested item," said Mary. The new white pages make it easier for employees to find people by department and title.

Last year a switch was made from the costly and labour-intensive yellow binder format to the full sheet style. "The new direc-tory is produced completely inhouse and two of the three steps in the process are now eliminated," said Mary.

The process used to go from the plant, to Office Services and finally to the printers. Now, the information is input at the source and printed inhouse.

The old book was updated maybe once a year at a cost of approximately \$15,000, said Mary. "We hope to update this directory at least twice a year. The entire process is much more automated and can be done at about 50 cents a copy. With 2,800 directories being distributed the savings are great."

Staff employees now enter information such as departments and titles directly into the system. "It is much more efficient to have the data input at the source," said Mary."



Arlene Julian of Office Services inspects a copy of the latest in-house telephone directory hot off the press.

This saves a great deal of time when proofing the final document.

Added features of the book include general telephone information; emergency numbers and process, and a fax number section. Now that some of the bugs have been ironed out, Mary said they are working toward having telephone numbers placed directly beside employee names in the yellow pages. This was a common request. However, it will take some programming

to accomplish.

Mary reminds all Centrex users that offices and plants in Copper Cliff, the Frood-Stobie-Garson Complex; and the Levack Complex can be reached by dialing only the four digit extension number.

The long-term plan is to eliminate the hard copy altogether and have direct access on the computer system, said Mary. Until then the employees in Office Services will continue to produce Inco's answer to 'Ma Bell's' phone book.



It has been estimated that at any one time there are more than 5,000 germs, viruses or fungi around us.

Many can live for more than 15 hours in the air. Our immune system can fight off or live with most of the germs, viruses or fungi but sometimes it isn't successful and we get sick.

Why do we stay healthy sometimes and get sick at other times?

If we stay healthy, then our immune system is working well. If we get sick,

What are auto-immune disorders?

Sometimes the immune system goes crazy and starts attacking parts of our own body. When this happens we say that the person has an autoimmune disease. Arthritis occurs when the immune system attacks its own joints as though they were foreign substances. Multiple sclerosis occurs when the immune system attacks the cells that insulate the nerves. The AIDS virus attacks the immune system itself so people with AIDS can die of many different diseases because their immune system is not wo

then our immune system isn't strong enough to fight the infection.

What is our immune system?

Our immune system consists of the lymphatic system and white cells in the blood produced by the bone marrow and the spleen. There are 'T' cells and 'B' cells. The T cells coordinate the attack and the B cells produce special proteins for each type of invader. These attach themselves to the invader and disable it. Once these proteins are produced the immune system remembers them and if the same invader returns the immune system will fight it easily.

Unfortunately, with the common cold, there have been more than 100 different viruses that have been identified that cause it so we may not have a memory of the particular virus to which we have just been exposed. Vaccinations expose us to the weakened virus so we can produce antibodies to fight the germ the next time that we are exposed to it or they give us the antibodies that were produced by animals and purified.

Does all this happen in the bloodstream?

Some of the battles take place in the bloodstream but many of the battles between the white blood cells and the germs, viruses or fungi take place in the lymph nodes at the side of the neck, under the arms and in the groin. This often causes the lymph nodes to enlarge when we are fighting infections.

Can we do anything to make our immune system stronger?

We can do many things to keep our immune system strong and effective:

- 1. Eat fruit, vegetables and whole grains so that the cells have the right substances to make them strong.
- 2. Drink at least eight glasses of water a day so that kidneys have fluids to rid toxins from the battle between white cells and the invaders.
- 3. Decrease the amount of unresolved stress in your life so all the resources are used to fight the invaders.
- 4. Have a positive attitude so that your brain chemistry allows you to operate efficiently.
- Get at least six to seven-and-a-half hours of sleep every 24 hours in 5. multiples of 90 minutes so there is energy to fight the invaders.
- Exercise to increase your heart fitness so that there is good blood exchange and all the cells of the body are nourished.
- 7. Stop smoking so that your circulation is at its best.

The immune system takes a few days to reach its full strength. This can be speeded up if you follow the above suggestions. If you are catching every germ that goes by try getting extra sleep, drinking lots of fluids, eating lots of fruit and vegetables, getting rid of unresolved stress and having a positive attitude to decrease the chance of getting sick.



substantially," said Brian.

Eric thinks the team approach



at Inco had a positive effect on the campaign. "I think there's been an improvement in attitude here. There was obviously no way we could have done it without everybody working together."

The nature and setup of the campaign also took the new team spirit into account. While coordinated centrally, the campaign relied on the motivation, enthusiasm and hard work of volunteers at each plant and mine.

"We kind of acted as resource people only. We helped it get started," said Eric. "After that, it was out of our hands. It can be a little scary waiting to see the results.'

The teamwork aspect kicked in right away, said Brian.

"At the plant, it took hard work by the canvassers, in cooperation with management, to mount a campaign," he said. "Everybody from plant manager to the shop floor - got involved to come up with this kind of success."

Catch the Scouting A SCOUTS CANADA SUDBURY DISTRICT TELEPHONE / FAX (705) 674-7111 a big Scouting thank you to all of the INCO employees who helped support we by your contribution to the clasted way !! It is through your generous donation that diouting continue to grow in the Region of Sudderly You're great !! Nucle Bergh Unispict Punident Scouts Carada

THE CANADIAN HEARING SOC SOCIETE CANADIENNE DE L'

and chierts of the anadian thank you we done to be surger that the we would like to surger to during can your to mindous surger for and with the your of relieve in programs How of relieve and the thoughout the Userefit the we offer thoughout the autors that we offer thoughout the autors that we offer thoughout the autors that we offer thoughout the

On behalf of the staff

descendy

To.

Eric & Brian,

Apeneille

the staff board one

envices that we after throughout the and connectly particularly accessibility and connectly development.

nton ^{C. 1995} United Way INCO Can

INCO for a happy and pre

mation

Once again, your germosity w deepsty

camp

The 1995 **United Way**

campaign began

with a

kick-off

barbecue.



I love bookstore bargains.

And the thrill of acquiring a beautiful new hardcover at 75 per cent off is further enhanced when I get back home and methodically peel off the sale sticker . . proudly shelving my latest addition, binding to brazen binding, with volumes that may have cost \$20 or more.

If, when I get around to reading the book, I find myself liking it too much, it isn't uncommon to feel a fleeting twinge of guilt that a fellow writer was paid so little. That's exactly what happened with There's A Country In My Cellar, by Russell Baker.

Learning from a master . . .

For this precious book, Baker intended to select the best of the columns he had contributed at the New York Times, twice weekly, for nearly 30 years. "Reader," he writes in the introduction, "until you have tried it, you cannot imagine the stupor that results from reading 2,945,000 words spread through 3,800 newspaper columns. First, you lose the power to tell good from bad, then to tell what time it is. Somewhere around column number 600 you start hating everything this man writes. By column number 1,500 you hate the man who writes it. Never mind that this man is you .

The mental distress produced by this exercise quickly destroys all judgment, making it impossible to tell best from worst." I think he could simply have chosen at random, because Baker's worst

would likely read better than the best of most . . . mine included. Indeed, this Pulitzer-prize winner from one of the biggest papers on earth has a lot more on me than just 13 birthdays, but it's gratifying to know that he, too, is his own worst critic.

Baker makes no claim that his book responded to the urging of friends and colleagues . . . but I can't help wondering if there's a Bob Bryson in his

Threads or yarns?

Bob may think I've forgotten, but flattery is a very good glue for slippery memories. Maybe three years ago, at one of Sudbury's recycled restaurants, while our wives got to waiting, Bob and I got to chatting. He said a kind word or two about my columns and opined that I should put them all into a back "I'll but the forther way "I'll but the forther and should be a back "I'll but the forther and should be a forther and should be a forther and should be a back to be a forther and should be a forther a forther and should be a forther a forther and should be a forther a forther a forther and should be a forther a fo

a book. "I'll buy the first copy," he offered. I figured then, and still fear, that Bob's 'first' copy might be the only paying copy, absorbing all production costs is with the rest ending up on the bargain table (never mind the justice in that). I doubt he wants it that badly. Nevertheless, it was a nice thought . . . and it recently bubbled to the

There's a family in my cabinet

(Part One)

surface as I reviewed all my past Triangle columns and stories to see what I had perhaps duplicated or left out.

There was too much paper to spread out in my little upstairs study, so I brought the pile of semi-old Triangles down to the kitchen table, in happy proximity to the fridge. I leafed through, cutting out my intellectual offspring, and then sorted them into the good, the bad, and the readily-

forgettable. And I read every column since April, 1989 ... all 58 of them. Even with away from Baker's 3,800 columns. My chore should have been simple and straightforward.

Staying with the pattern

In the preamble to my first column, I promised I would "try to gradually weave a tapestry that would give some appreciation of events that played a role in establishing one of the world's truly great industries and its surrounding communities."

Talk about a driver's side windbag. Now I'm scolding myself, although the flaw in my objective wasn't intentional: "It wasn't the events that played the roles, stupid...it was the people.

It wasn't hard to figure out, even for me.

My computer, I finally woke up and remembered, has a dandy little program that the hackers among you would recognize as a data base. It only made sense to use it for listing all these resurrected columns and stories by category. Incredibly, then, that's what I did. The resulting report tells a lot about how I've used my space, and, more importantly, helps me identify what categories you folks like (and dislike) most. It told me, in fact, exactly

what you've been telling me in writing, and to my face, all along. And what was that? Well, surpassing even the common fondness for stories about our early days, your greatest preference has been for tales about people, places and events that you either remember personally or identify with in some way. Those stories, big surprise, all ended up in what I call my 'Inco Family' group. So, if I expected to do more of a good thing, it seemed appropriate to go back for a closer look.

As I did so, I was struck by the profound changes that have occurred within this family in so short an eternity as six years. Many stories, written to stay relevant for decades, are already in need of an epilogue. I'knew change was coming, of course, but . .

**** to be continued ****

Coordinating benefits 'a win-win situation'

nco has broadened its guidelines for coordinating medical benefit plans to include cases where both spouses are employed by Inco.

Until now the procedure for coordinating these benefits contained no provision for situations where both spouses were Inco employees or pensioners

"The original guidelines for

ously, if an employee or a spouse submits a claim, they must use their own benefits first.

"If a claim is filed on behalf of a dependant, then the benefits plan used first is that belonging to the parent whose birth date falls closest to the beginning of the year."

In both scenarios, secondary or surplus claims are made under the partner's benefits plan.

John's plan \$225 Balance <u>\$_75</u> \$150 — Remaining coverage in John's plan for Jane.

By coordinating the benefits 'the entire vision claim was paid.

"Employees have the same amount of coverage or more," said Diane, "but it's coming from two different sources



coordinating benefits still apply where an employee's spouse is employed elsewhere," said Benefits administrator Diane Olivier.

"It's a win-win situation. The proper coordination of benefits allows the company to contain costs and allows employees to enjoy the coverage to which they are accustomed. Coordination simply allows us to allocate the costs to the proper source.'

Under the benefits coordination program, if an employee's spouse has medical coverage from another source (i.e. an employer other than Inco) they must use those benefits first, then submit claims under Inco's plans.

"The important thing for employees to realize is which benefits plan is used first in cases where claims are submitted," said Diane. "Obvi-

Here is an example to explain how coordination of benefits applies when both partners are employed at Inco:

Husband John and wife Mary are Inco employees who have \$225 coverage.

Their daughter Jane has been prescribed a pair of \$300 glasses. Mary's birth date falls closest to the beginning of the year, so the vision claim for Jane is processed under Mary's plan first, with any remaining balance being processed under John's claim. Here is the calculation:

Jane's glasses	\$300
Mary's plan	\$ <u>225</u>
	\$ 75 - balance

The balance is then submitted under John's plan as follows:

The coordination of medical benefit plans is also available to pensioners. However, In order to provide this service the Benefits department must update its records.

Since the department's records have already been updated to reflect coordination of benefits coverage provided from a source other than Inco. only those employees and pensioners who are either both employed or retired from Inco are requested to complete an application form which may be obtained from the Benefits office at the Copper Cliff Clinic or by calling (705) 682-6676.

Note: Any changes to your personal status must be reported to ensure proper payment of claims: (i.e. marital status, date of birth, full-time student, coordination of benefits, addition or deletion of dependents).

Nickel Belt MP Ray Bonin studies some of the 1,500 names of Inco employees and suppliers who signed petitions stressing the importance of the mining industry in Canada. Bob Shaw, a training supervisor in the Mills and Transportation department with 30 years of service in March, presented the Keep Mining In Canada petitions to the Liberal member just before Christmas. Mr. Bonin told his House of Commons colleagues that in this age of technological transformation, Canadians often forget that mining and natural resources continue as an economic force. He said he agreed with the Keep Mining in Canada Campaign's call to the government to do all that it can to improve "the slumping mining investment climate in Canada" so that mining will continue to provide jobs for Canadians.



enough and the tendon itself is irritated as well where it attaches to the bone. If these demands on the muscle and tendon continue, the pain in the tendon will stop the muscle from contracting very hard to avoid more serious damage. So, to us, it seems as if the muscle is weak. But, in actual fact, the muscle itself is not weak or injured.

How does it happen?

Several different things can cause tendonitis. These include: Imbalance of muscle strength and flexibility.

One group of muscles is working all the time and getting stronger and shorter and doesn't have enough time to relax. The opposite group of muscles is lengthening and getting weaker.

Repetitive work or activities:

Tendonitis can occur from doing a simple task such as using a keyboard, mouse or cash register for too long without enough brief breaks. Moderate or heavy work.

Tendonitis can also occur from doing moderately strenuous work using the same muscles for a moderately long period of time.

Jerking, jarring and vibration.

The chances of tendonitis are increased if there is a lot of jerking, jarring or vibration involved. Jerking or jarring increase the strength required of the muscle to do the activity by up to seven times. Vibration keeps the muscle contracted and does not allow any time for the muscle to relax.

Habits, hobbies and overtime.

Tendonitis will occur more quickly if we work a lot of overtime or if we use the same muscles to do things in our leisure time that we use at work.

Lack of fitness for the specific activity.

If we do something new that makes different physical demands on particular muscles that we have not been using strenuously for a while, we increase the chance of getting tendonitis.

How do we prevent tendonitis?

 Make sure that we do exercises for the muscles opposite to those that. we use more often. For example, most people who do physically demanding work use the bending, lifting and pulling muscles more than the pushing muscles so they should be doing some wall pushups, exercises on their hands and knees and knee pushups.

onera

the come that we want the a strategy and the second



to avoid tendonitis

common sense thing to do would be to exercise the 'weak' muscle so that we could get the full functioning of the joint back to normal. Unfortunately, this type of logic won't help us to get better but will usually make tendonitis worse. Working through the pain is the wrong thing to do.

of soreness for 20 minutes decreases any swelling, muscle spasm and soreness and increases the deep circulation after 12 minutes. This can be repeated every hour if necessary.

b. Apply penetroting cream to the area as directed. This cream is an . anti-inflammatory and cannot be felt. It usually takes about 30 minutes before you can feel the effect. These are available at most drugstores

c. Hot and cold rubs give some relief by fooling the pain messages but they do very little to promote healing.

d. Anti-inflammatory pills help in some cases.

e. Acupuncture by a qualified acupuncturist

f. Cortisone injections are sometimes used in chronic cases. The effects do not usually last if you do not do some things to change the reason that you had the trouble in the first place

3. Wear a support. The muscle is not weak but since the tendon attaches the muscle to the bone, the muscle is only as strong as the ability of the tendon to pull on the bone so one of the things that we want to do is rest the tendon so that it can heal. The best way to do this is usually through the use of appropriate supports that will allow us to use the affected muscle and keep it strong but put less stress on the irritated tendon. By using an appropriate support we can often use the muscle to a certain extent without getting or increasing the pain.

Common supports used are elbow, wrist, knee and ankle supports. Because the blood supply to the tendon is poor, healing tends to take a very long time. Supports often must be worn for several months and often 24 hours a day, especially if the symptoms occur at night. Gradually, support use can be decreased if you are able to do things without the pain.

4. Increase circulation.

a. Alternate heat and cold every four minutes. Use a gel ice pack and heating pad or hot-water bottle.

b. Ultrasound is often helpful. This treatment is done by a physiotherapist.

5. Exercise the muscles opposite the sore one.

As soon as the pain begins to calm down you want to start some gentle stretching. If you get keen to exercise make sure that you are not overusing the tendons of the muscles that have had the tendonitis.

and the second second

LESS WATT

In Ontario we are used to an abundant supply of clean water. We often do not give its use a second thought. As a result, we often waste water without realizing that we are wasting money.

Water requires chemical treatment and energy use in the form of pumping to get it to us. After we are finished with it, the water requires pumping to get it to the sewage treatment plant where more energy and chemicals are required before it is released into the natural watercourse.

At home, we pay hundreds of dollars annually for our water bill. We can reduce this cost in a number of ways:

- Fix dripping faucets. A dripping faucet fills 192 bathtubs a year.
- Use high-efficiency shower heads.
- Wait until the dishwasher is full before using it.
- Do only full loads of laundry. (This is another electricity-saver.)

At work, water for the Levack area comes from the Onaping River and for the Frood-Stobie Complex from Whitson Lake. For most of the other plants, the water comes from the Vermilion River. The water is pumped from the river

Smart water use cuts energy costs

to the Creighton Water Treatment Plant where the water is cleaned and chlorinated. It is then pumped to the 16 million-gallon tank in Copper Cliff where it is distributed to the mines and plants. After the water is used, sewage water is pumped to a sewage treatment plant and process water is either recirculated or pumped to the tailings area.

Two-thirds of the water used at Inco is recirculated. At work, we can significantly reduce water use and help reduce product cost by:

- Turning off cooling water when not in use.
- Turning off hoses when not in use.
- Fixing water leaks.
- Turning pumps off when not required.

Future columns will discuss other aspects of water use and ways that we can help reduce it.

Last year, the Creighton Water Treatment Plant pumped, filtered and processed 2.9 billion gallons of water. Of that, Inco used 2.5 billion and sold the remainder to the region.



Magnetic sensor aids ore discoveries

40 Years Ago

Doing things in reverse is usually clumsy and inefficient, but driving a shaft from the bottom up, instead of from the top down as it is usually done, speeded up the work at Frood-Stobie by 20 months and saved many hours of labor.

Completed in 1953, No. 8 shaft was excavated by driving upwards at the same time from each of five crosscuts, opened from No. 7 shaft 100 feet away, at 400-foot vertical intervals.

The pilot raise was then widened to full size and concreted, by working from the surface down and drawing off the broken rock at the bottom.

Used exclusively for hoisting ore, the shaft was equipped with a semiautomatic hoist, driven by two 3,000-horsepower motors capable of delivering a 15 ton payload 3,000 feet per minute to the surface.

Other stories that month were: 'Pick Best Brigades in Annual Contests for Fire-Fighters', 'Big Activity Range at Inco Recreation Hub, Port Colborne', 'Almost 15,000 Inco Children Thrilled at Annual Christmas Entertainments'.

25 Years Ago

"Shaping the destiny of International Nickel's metallurgical operations both at home and in many countries abroad, the Inco research station complex at Port Colborne has during the past 10 years been the proving ground for sweeping innovations in the nickel industry," said the Triangle.

That was the lead paragraph in its February issue in 1970, describing the Port Colborne research complex.

Taking new process ideas which were brought through the 'test tube' and mini-plant stage at Inco's J. Roy Gordon research laboratory in Toronto, the Port Colborne complex was credited with developing two new processes — the oxygen top-blown rotary converter and the Inco... pressure carbonyl process, used in the Nickel Refinery in Copper Cliff, plus many other innovations.

Twenty-five years ago, the largest known reserves of nickel in the world were in Cuba, Guatemala, New Caledonia and Indonesia. In its smallscale facilities in the three basic areas of metal extraction — pyrometallurgy, hydrometallurgy and vapometallurgy — the Port Colborne complex was also making a determined effort to develop new, more economic processes to develop these lateritic deposits.

Other stories that month were: 'Five New Vice-Presidents Elected by Inco Directors', 'Did Mighty Meteorite Blast Sudbury Basin', 'More Fun Than Fury But Shift League Going Big'.

15 Years Ago

After 40 years of servicing Inco and, in its younger days, the city of Copper Cliff, the main switchboard at the General Office in Copper Cliff was being partially replaced with a new SL-I telephone system that was capable of providing speed calls, setting up conference calls and notifying a user when an internal number he tried was no longer busy.

"It increases our capacity to handle all calls," said Mary Sitko, then office communications co-ordinator. "The whole system will have the ability to expand because it's computer-controlled and software programmable."

The old switchboard had been a stalwart performer in its time, said Pat MacDonald, Inco's switchboard operator before modern technology put it on the scrap heap. "It needed very few repairs, just routine maintenance and replacement of telephone plugs," she said. With faster push buttons on the new system, instead of a dial, she expected it would save a lot of wear and tear on her dialing finger, too.

Other stories that month were: 'Inco Metals To Study Snow Protection Devices for Railway Switches', 'First Of Company/Union In-Term Talks Held', 'Garson Mine Wins All Mines Safety Award'.



Two big issues to remember when filing '94 tax returns

I t is almost time to file 1994 tax returns and although the year is over there are still a couple of things you can do to ensure that you pay only as much tax as is necessary. There are two big issues. These are your RRSP contribution and, for this year only, there is also the Capital Gains exemption. Then there are the smaller issues like making sure you have:

then every receipt counts.

Capital Gains — no action required

exemption consideration, so there is nothing to do here.

4) The Capital Gains exemption remains in place for gains on shares of qualified small business corporations and for qualified farm property. Inco, or units in mutual funds, you can 'elect' to recognize the gain in value since you purchased these.

save at least \$30 in future tax payments for every \$100 in capital gains you elect to claim now. The cost of making the claim is \$0 in tax owed

1) Receipts: charitable donations, safety deposit box, investment counselling, interest expense on money borrowed for investment purposes, RRSP administration fees, children's tuition and education deduction receipts (if the student has not earned enough to claim these for credits).

2) Any receipts for medical/ dental expenses not covered by insurance plans. You probably won't get to make any claims here unless someone has had a lot of orthodontic work done in the past year. But if you do have a claim, Capital Gains and using your Capital Gains exemption are the most discussed issues for your 1994 tax return.

Should you be concerned? There are a number of areas where there will be no effect.

1) Your principal residence currently attracts no Capital Gains when you sell it. So, the increase in value that occurs between the time you buy and the time you sell is not a tax concern.

2) Capital Gains inside your RRSP are taxed as regular income when you withdraw funds from your RRSP. No need to be concerned about these Capital Gains.

3) Real estate, other than your principal residence, purchased since March of 1992 is not eligible for any Capital Gains

Capital Gains — What to lock in

You may choose to take action on other Capital Gains if you have not already used your \$100,000 Capital Gains Exemption. There has been a great deal of publicity about electing to declare your Capital Gains up to February 22, 1994. This sounds complicated but it really is not. You simply assume that you sold items which attract Capital Gains to yourself as of February 22, 1994. You can choose which capital items to claim a gain on and which to leave alone. You do not claim capital losses until the property is sold.

1) If you own shares in publicly traded companies like 2) If you own real estate, other than your principal residence, you may lock in the gain and use your Capital Gains exemption. This gain is subject to an adjustment for the period from February 1992 to February 1994. I wrote about the steps you should take regarding your camp-last summer, and the rules for getting an appraisal also apply to rental properties and to other real estate investments.

Is it worth claiming your Capital Gains now?

If you have any part of your exemption left and you are not receiving any government tax credits like Ontario Tax Credits, or GST rebates, or the Old Age Security supplement, then yes, it is worth the extra time now. At an income level over \$30,000 including the gains you claim, you will thís year.

RRSP Contributions

We all know that RRSP contributions are important, both for the future and for the immediate reduction in personal taxes. One of the rumors concerning the upcoming budget is that the government may change the rules for RRSP deductions. Making your contribution before budget day is a wise move since changes in the rules usually take effect on the day of the budget, just as the Capital Gains changes did last year.

Most of us have very few options for minimizing the tax we pay, so we have to take advantage of all that are available. No one is going to ask if we have forgotten to claim deductions we are entitled to.



By now, nearly everyone in Sudbury and at Inco knows that one of the most sophisticated laboratories in the world is located under two kilometres of solid rock at Inco's Creighton Mine.

The lure of the elusive neutrino is putting Sudbury, and Inco, on the scientific map internationally. Now in the final stages of assembly, the Sudbury Neutrino Observatory (SNO) will be one of the most sophisticated detectors in the world.

Already, it has become a mecca for an international team of scientists from Canada, the United States and Great Britain. Lately, SNO has been getting the big media treatment from the likes of the New York Times and CBC's The National.

None of this would have been possible, says SNO's communications

The cruelest cut

head Dr. Doug Hallman, without the extensive cooperation, support and resources of Inco people in letting a laboratory flourish in a productive underground environment.

While lab scientists and international visitors will routinely rub shoulders with Creighton miners over the next decade, the observatory will have other vital links to Inco products.

Doug, a Laurentian University physics professor when he's not at SNO, says that in their worldwide search for the best technology for the detector, the SNO scientists are placing nickel and nickel alloys front and centre at the observatory.

Did you know that:

• stainless steel will be ex-

tensively used in a key piece of the detector. The 10,000 light sensors that will detect neutrino events in the heavy water core of the SNO detector are supported by a 17-meter diameter geodesic sphere. Close to 40 tons of stainless steel tubing containing 10 per cent nickel is in the sphere. SNO collaborators at Lawrence Berkeley Laboratories in Berkley, Calif. designed and made the sphere.

showbusiness!

• Hastelloy — a special corrosion-resistant alloy containing more than 60 per cent nickel and often employed in marine work — is a key in SNO's water purification room. As part of the heavy water filtering system, a group of 'reverse osmosis' tubes 12 inches in diameter by 12 feet long have been installed. Fabricated from Hastelloy, these tubes must handle water containing magnesium chloride during part of SNO's operating cycle, a corrosive environment for ordinary steels.

Nickel shines in SNO construction

has finally found a welcome home for her magical four-foot by eight-foot mural called Morning. Originally created with young cancer patients in mind at the Northeastern Ontario Cancer Research Centre, the wonderful painting now resides at the Diabetes Centre on Highway 69. Carenie, whose father died of cancer, worked on the painting amidst children at a Walden day care centre. Filled with small, magical creatures and diminutive fairies, the painting offers hope and optimism. The artist has just begun a second large painting called, appropriately, Afternoon. "In each of them, there is a little castle with one or two people crying so there is a reminder that I understand that when you're sick, you feel very alone." She hopes to find a home for it at one of the 37 other cancer treatment centres in Canada.

Whatever happened to . . . ?

MPING SERV

In his forays into the United States to shoot photographs of Inco

operations for the annual report, Toronto photographer John

Harquail couldn't resist this shot from Memphis, Tenn. Ah,

"Who misses work?" muses John Filshie, a former hoist inspector in the North Mine maintenance department. With 38.6 years to his credit on retirement two years ago, John and his wife were set for a western skiing trip when we called. "We go wherever the wind blows," he says. When he's around Sudbury, he teaches squash at Cambrian College and skis at

Adanac . . . John Calback has enjoyed "nothing but happy days" since retiring Nov. 1, 1991 as a member of the tram crew at Creighton with 33.5 years of service at Inco. A special new lady lights up his life today and were he to win the lottery, he says, he and his new friend would move to Hawaii ... Gary Ackland was a lineman in the Power Department for 30 years. Today, two years after retiring, he spends his days as a sales representative for steel buildings and golfs in his spare time . . . "I really enjoyed the work I did for Inco and I miss it," says Mary-Ellen Fillator who had 30 years of service on retiring as a programmer with Information Systems. A craftsmaker, traveller and inveterate shopper, she's expecting her first grandchild this month. Although she loves retirement, she says she misses her old job and the many friends she made at work . . . When he decided to retire in 1994 after 25 years of service, Clarabelle Mill maintenance

cordinator Wolfgang Foehr still enjoyed his work. Since retiring, he's kept himself busy with a new business. His company, Timberwolf Tours Inc., targets German tourists searching for a true Canadian holiday. That means dog sledding and bear hunting. Even though he'd like to be busier, he says, "In retirement, you sure miss the boys."... Retiring from Process Technology as a senior process assistant in 1994 with 28.5 years of service, Stuart Comba says he is so busy he doesn't think about Inco today. In winter, he ice fishes and bowls and in summer, he golfs, fishes and travels . . . Ernie Hywarren left Inco in late 1994 after 30.5 years' service in electrical instrumentation and now applies his knowledge of process controls to a new position in sales in Sudbury.

• only nickel tubes developed with Inco's nickel vapor deposition technology meet the stringent criteria for SNO. Scientists from the University of Washington in Seattle are building a set of neutron detectors for installation in the heavy water vessel next year when SNO starts operating. These sensors must be made from ultra-pure components to prevent interence with neutrino measurements. Metal tubes for the sensors are being made from vapor-deposited nickel.

I Heard It On The Inco Grapevine

Inco's longstanding work on regreening using red pine seedlings grown underground at Creighton Mine was spotlighted on CTV's awardwinning W5 television program Feb. 20. Producer Leslie Peck focused on an underground nursery at Hudson Bay Mining's Flin Flon, Man. mine. But knowing Inco pioneered vegetable growing underground in the 1970s, Peck used our Inco film footage from our tree nursery and from our spring planting . . . Inco Exploration's Ed Debicki says the 1996 Sudbury Gem and Mineral Show is set for July 19-21 at the Carmichael Arena. Last summer more than 1,900 people, up 16 per cent from the year before, visited the displays. Richard Gouin, a member of the Sudbury Rock and Lapidary Society and maintenance foreman at North Mine, took 11 society members on a field trip to the mine which has a history reaching back to the first full-scale mining operation in the Sudbury district in 1886 . . . Artist Carenie Little, wife of Crean Hill geologist Terry Little,



Published monthly for employees and pensioners of the Ontario Division of Inco Limited. Produced by the Public Affairs Department. Members of the International Association of Business Communicators.

Letters and comments are welcomed and should be addressed to the editor at Inco Limited, Public Affairs Department, Copper Cliff, Ontario POM 1NO. Phone 705-682-5428