



Why was this Electrowinning operator in the spotlight? The answer to that and more is inside on page 6.

INCO Triangle

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Huge savings from 60 Hz conversion

Inco people have turned a costly change to replace an obsolete power system into cost savings and improved productivity in the Ontario Division.

It all started a few years ago when Ontario Hydro informed Inco that supplying reliable 25 Hertz (Hz) power was going to become impossible because of the difficulty in maintaining and repairing the old system of hydroelectric power generation.

Inco started generating its own power near the turn of the century at High Falls No. 1 Power Plant on the Spanish River, in what would become part of the Town of Walden.

There are 11 control dams on the Spanish, eight of which are controlled by Inco.

Sudbury and area operations had been using both old 25 Hz (or 25 cycle, as it is also known) and newer 60 Hz power supplies for decades until only a few months ago.

Stan Zajc, project manager of Inco's 25 Hz conversion program, has overseen much of the power generation changes since 1992 in the Ontario Division.

"We have 30 per cent more installed power capacity" as a result of the conversion from 25 Hz power generation to 60 Hz, he said.

continued on page 2

Up, up and away



Annette Gladu of Collège Boreál prepares to release a weather balloon into the skies above St. Anne Separate School in Hanmer. The class meteorological project was aided by Inco which donated balloons, temperature reading instruments and weather data from simultaneous launches outside the Engineering Building. For more see story and photos on pages 8 and 9.

Awareness key to Port safety

For the first time in its 78-year history, the Port Colborne Refinery has gone one full year without a lost-time accident (LTA).

And the record continues to grow.

"It's never happened before," said Safety and Training supervisor Bob Leveille. "Back in the 1960s we worked a million man-hours without a lost-time injury but we've never gone a complete year without a lost-time accident. Our last one was on Oct. 31, 1995."

Given that safety is subject to much more scrutiny today and the fact that reporting of all incidents is heavily stressed, this accomplishment outshines previous safety milestones, said Bob.

Determining what is responsible for the improved performance is difficult because several factors played a role, he said. But determining who is responsible is easy.

"You can't point to one action as being responsible for this result," he said. "It's a bunch of little things done right, together with increased safety awareness."

"You can do everything you want regarding safety but if employees on the floor don't buy in you're not going to get anywhere. The people on the floor are responsible for this achievement because they're the ones doing the work. I just monitor the programs."

Bob said the change in attitude, where safety is concerned, has been remarkable. Employees approach him regularly to point out potential hazards, express their concerns or put forth ideas for improvement.

"I think the safety workshops we had last year definitely elevated awareness. You can see a strong management commitment to ensuring procedures are adhered to and proper safety equipment is worn. Everyone is much more committed to doing the little things correctly."

"The Process Hazard Reviews are important as well because the employees involved in the review become more safety-conscious and the fact we do them makes that particular job or procedure safer."

Another contributing

continued on page 5

4

Cleaning house

10

That giving spirit

11

Going green

Power conversion project pays dividends in savings and improved productivity

continued from page 1

The \$42 million cost of the Division's conversion will be recouped in three-and-a-half years, Stan said. That's because there are many savings to be had with the new 60 Hz generation.

He estimates that energy savings alone, by replacing all 25 Hz generators, will be about \$2 million a year.

"There was a lot of duplication at every plant because of the two systems."

Stan said the conversion has lowered maintenance costs as well.

"The 60-cycle system is easy to maintain because it's less subject to breakdowns. Since May, when the conversion was complete, it's been a success story."

The need for 60 Hz power frequency has been increasing significantly since the 1960s, he said.

And that need became more acute in 1971 when Clarabelle Mill started using 60 Hz power supplied largely by Ontario Hydro.

Inco generates about 20 per cent of its power needs at its five generating power stations: High Falls No. 1, High Falls No. 2, Big Eddy, Nairn Falls and Wabageshik. The company buys the remaining 80 per cent, about \$70-million worth, from Ontario Hydro.

Over the years, mines and surface plants have slowly gone from 25 Hz to 60 Hz.

The change means greater efficiency, compatibility with modern industrial machinery at all operations and a corresponding cost saving.

"Twenty-five cycle became obsolete because 60 cycle became predominant. The new motors needed higher RPM drives that 25 cycle could not provide - just by the physics."

But 25 cycle had been providing a good chunk of Inco's power needs for decades.

"We were buying 25-cycle equipment right until 1992. Mind you, it was custom-built and very expensive to repair."

The old system had served Inco well until fairly recently in the company's 94 years of production in the Sudbury area.

"It was almost all 25 Hz until the mid-1960s," Stan said.

"There were two systems running parallel. We were incurring losses because we had two systems running when we only needed one."

The demands of production dictate the great peaks and valleys of company power consumption. Inco uses its own power generation to decrease the cost of an intricate Ontario Hydro billing system that escalates consumption prices during high usage periods.

Inco's own power generation costs the company less than one third of purchased power from Ontario Hydro.

The conversion to 60 Hz will augment those savings while modernizing much of the operations in Sudbury.

Aging equipment had still been using the 25 Hz power

only a year ago at many operations including Creighton Mine, the Copper Refinery, Stobie Mine and the Smelter.

The cost of maintenance and repair of the old hardware will also now be saved with new equipment.

"Just on power-usage savings alone, we save \$1,400 a day (or \$511,000 a year)," said Ron Capstick, conversion project coordinator at the Smelter.

"We can actually shut down No. 2 Powerhouse, sometimes all week, and use No. 1 Powerhouse as the main air supply to the converter aisle," said Ron.

"No. 2 Powerhouse has become a back-up system."

Improved ability to control the air blowers to the converter aisle also means more efficient use of power, Ron said.

"Through better utilization of the machines we can now allow them to idle when there's no air demand from the converter aisle" - that's where the energy savings are recouped.

Before conversion at the Smelter from 25 Hz to 60 Hz, forced air was constantly blowing into the atmosphere.

"Our machines were running flat out all the time," Ron said. "During conversion to 60-cycle power, we added the latest control systems."

Ron said a sort of automatic transmission system, by Voith, now allows the blowers to be turned on and off as the converter aisle requires.

The new motors for the 15-pound air blowers also make starting and stopping air supply a simple task. Under the old 25 Hz power system the blowers could not be stopped because of the wear and tear it would cause. That meant much less efficiency and higher production costs.

Sixty-year-old motor-generator sets were removed and replaced with 730 nickel-cadmium batteries in the old Motor Generator Building of the Smelter Complex. In the case of a power failure the batteries supply power to six converters, which reduce sulphur content in the matte.

The previous power back-up system to turn the converters relied on the inertia of a seven-ton flywheel coupled to a motor-generator set. After a power failure, the motor-generator set would continue to turn for about 20 minutes of useful power generation.

Although the massive conversion project began in 1992, planning for it began years before.

"We started the planning eight or nine years ago," said John LeMay, project manager of energy conservation.

He credits Stan with being the primary mover and shaker of the conversion project.

"Stan, Ray Cousineau, the superintendent of power, and I started the thing. But Stan was the guy who put the whole thing together. He worked night and day on this."

And now, night and day, Inco is working on 60 Hz power.

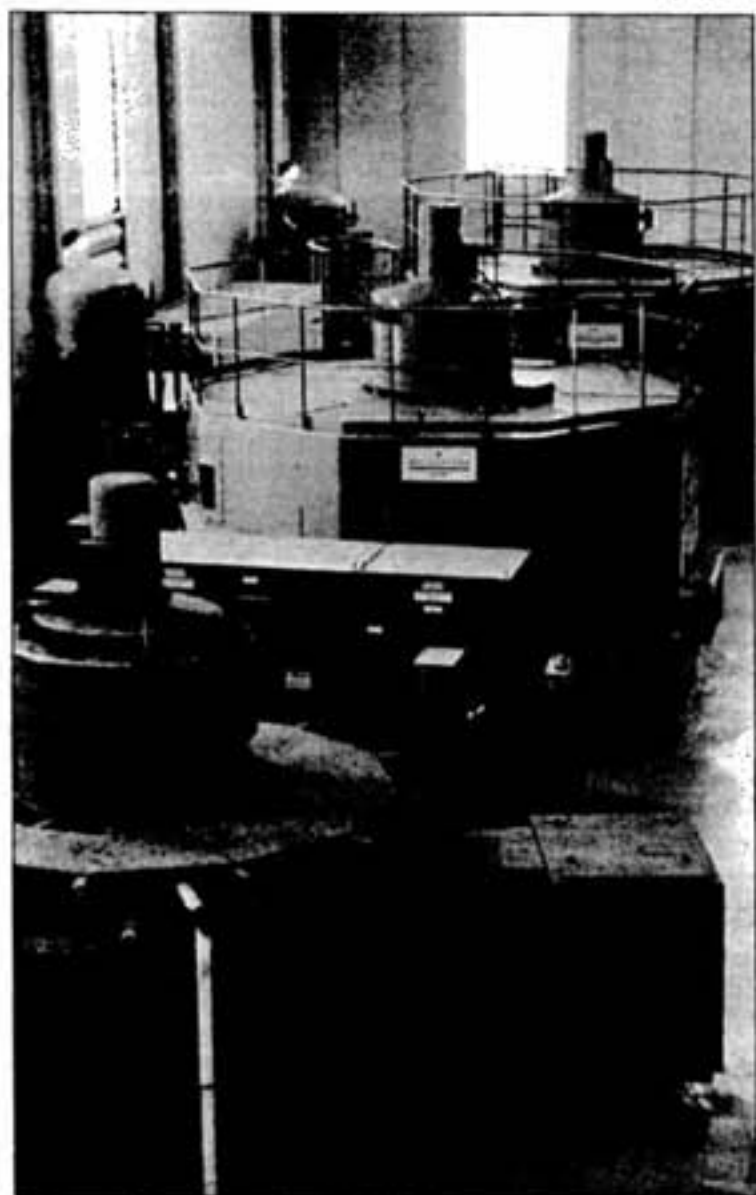


Ron Capstick, conversion project coordinator at the Smelter, likens the Voith controller at No. 1 Powerhouse to an automatic transmission system for the air blowers at the Smelter. The blowers can now be turned on and off when needed thanks to the new 60 Hz power system.

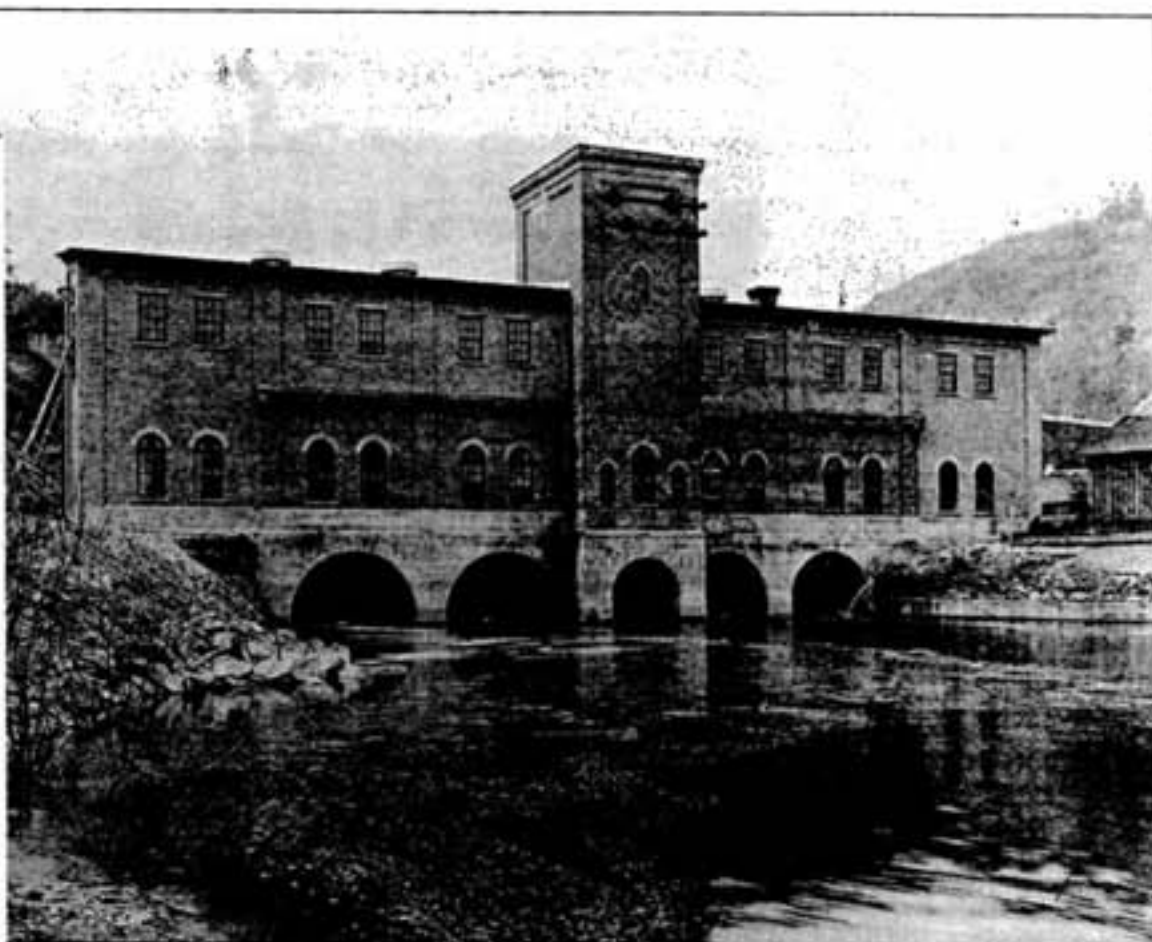
POWERING THROUGH TIME

A brief history of Inco's power generation:

- **1904-1906** - Huronian Power Co., a subsidiary of International Nickel Co., develops the 25 Hz hydro power generating station High Falls No. 1, on the Spanish River in what is now part of the town of Walden. High Falls delivered power to the Copper Cliff Smelter from 1906 to 1917.
- **1908-1913** - Lorne Power Co., a subsidiary of Mond Nickel Co., develops 60 Hz power generation at Wabageshik on Vermilion River. (Inco merged with Mond in 1928.)
- **1913-1916** - Construction of Nairn Generating Station, owned by the Mond Nickel Company.
- **1915** - Lorne Power Co. develops 60 Hz power generation at Nairn Falls. (After the merger of International Nickel Co. and Mond all hydro plants were owned and operated by Huronian Power Co.)
- **1919** - High Falls No. 2 Powerhouse is built, also generating 25 Hz power.
- **1924 to 1928** - The 25 Hz Big Eddy Powerhouse is built on the Spanish, further down the river from the two High Falls hydro plants. Today, Big Eddy is remotely controlled completely from High Falls No. 1. At one time there was an operator and floorman.
- **1930s** - Inco becomes a customer of Ontario Hydro for 60 Hz, or 60-cycle power.
- **1965** - High Falls No. 1 Power Plant is converted from 25 Hz to 60 Hz.
- **1986** - One of three generators at the Big Eddy plant is converted to 60 Hz.
- **1992** - Construction starts at the High Falls No. 2 Power Plant for conversion from 25 Hz to 60 Hz.
- **1996** - The \$42 million conversion of Inco power plants and generators from 25 Hz to 60 Hz is completed. (There had been three remaining 25 Hz generators, which were producing half of Inco's power output.)



Project manager Stan Zajc is dwarfed by the huge 60 Hz generators at High Falls No. 1 power plant.



In many ways the outside appearance of High Falls No. 1 Plant hasn't dramatically changed since this photograph was taken in 1918. But inside much has changed. Most significantly is the change from 25 Hz to 60 Hz power generation.



Ray Newman, maintenance electrician, checks the acid content of batteries in the Motor Generating Building of the Copper Cliff Smelter. Sixty-year-old motors were removed and replaced with 730 nickel-cadmium batteries. In the case of a power failure, the batteries supply power to six converters, which turn molten metal in the smelting process. The previous back-up power system for the converters was a seven-ton flywheel, which would continue to run for about 20 minutes in a power outage.



Project manager Stan Zajc estimates energy savings at \$2 million a year from converting the company's 25 Hz generators to 60 Hz at areas like High Falls No. 1.



Stan Zajc checks conditions on the control wall inside the High Falls No. 1 power plant, constructed near the turn of the century and recently converted from 25 Hz to 60 Hz generation.

Team housekeeping improves safety

Sometimes cleaning up is more than a matter of appearance.

Employees in the Matte Processing area of the Smelter have found it can be a matter of safety and productivity.

Management and employees recognized that safety hazards were becoming more numerous because of a lack of clean-up, said shipping foreman Al Beers.

"Now we don't consider a job done until the clean-up is done."

Some 50 employees at Matte Processing's Fluid Bed Roaster Plant and Shipping are proud of the successful team approach that led to cleaner and safer work environments in all areas.

In many areas it wasn't uncommon to see bricks, wood, various equipment and dirt on the floor—all of which posed their own safety hazards such as tripping or slipping, said Al.

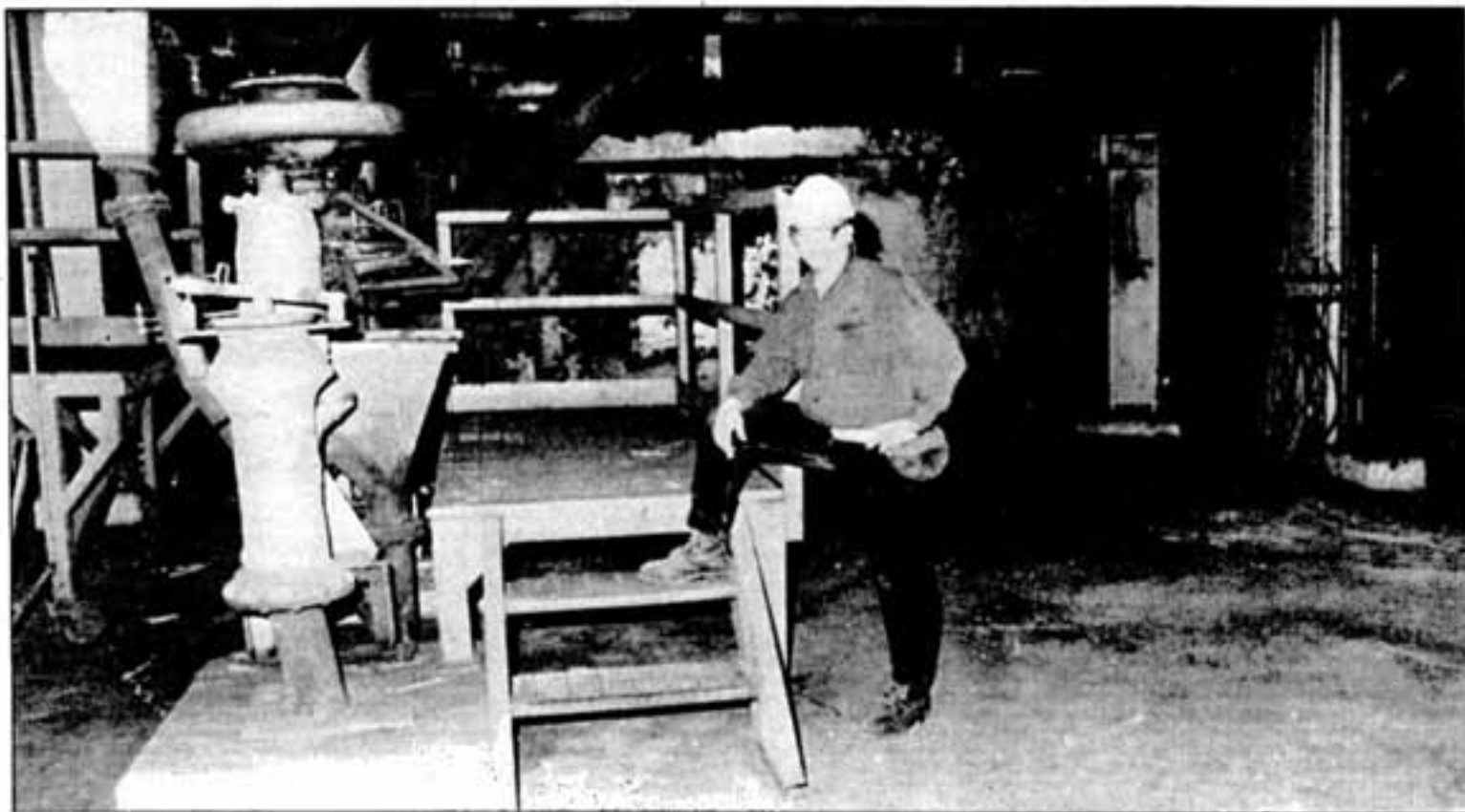
"We have a market product, nickel oxide sinter. It's 75 per cent grade nickel. If you have a dirty plant you could contaminate your product. But first and foremost it was a safety issue—tripping hazards and dust."

A committee of hourly-rated and staff employees was formed this summer to address the issue. By August the new clean-up procedure was in place.

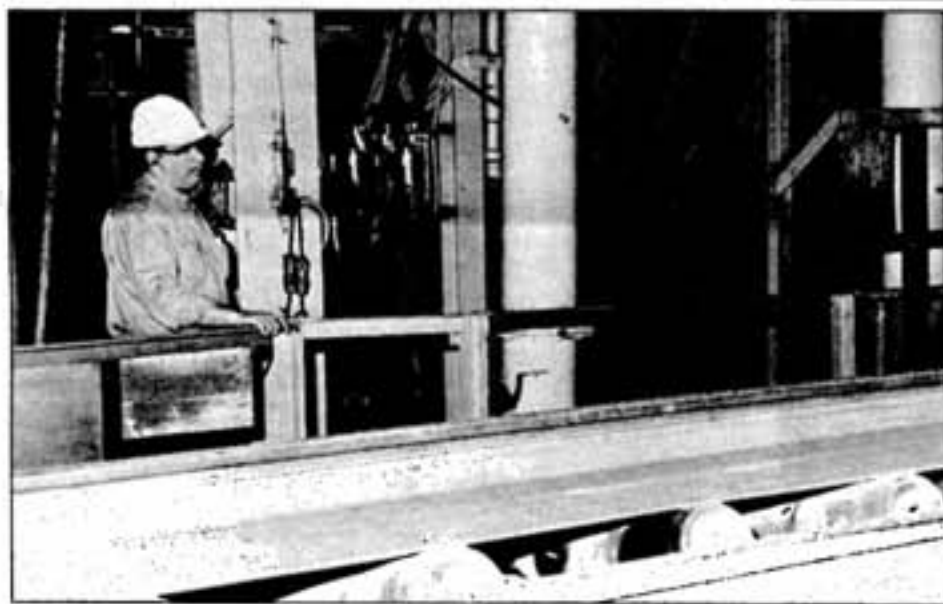
The team assigned responsibilities to different groups of employees for keeping designated work areas clear of equipment, refractory bricks and wood and ensuring no nickel oxide collected on the floors.

Since then housekeeping has improved considerably, Al said.

"The Fluid Bed Roaster and



Shipping foreman Al Beers and some 50 employees at Matte Processing's Fluid Bed Roaster Plant and Shipping are proud of the successful team approach that led to cleaner and safer work environments in all areas, such as the cyclone area at No. 4 Roaster where bricks, wood and dirt on the floor posed safety hazards.



Rick O'Brien, maintenance team leader, checks the operation of the matte tripper in a freshly-painted area. The matte tripper distributes the matte into bins in the separation building.

tor Louis Boudreau and services operator Jack Sabourin. Now all employees know



Rick O'Brien

which area is theirs, so there's no fuzziness about whose responsibility it is to keep a place clean and safe, said Al.

The problem with the lack of clean-up had been that there was no procedure in place.

"If one group didn't clean up then another one didn't either," said Al. "Management recognized there was a need for improvement in housekeeping, so we gave each of the three groups of operating employees their own area. We also identified equipment that most contributed to spills, such as conveying systems, drop chutes and product bins."

A basic cause of spills was the conveying system because it lacked an interlocking process or a sequencing of running conveyors, Al said.

"So if one quit, the other didn't and then you'd get a spill (of nickel oxide)."

With about 30 conveying systems in Matte Processing the problem was significant.

A team of electrical, instrumentation and maintenance employees decided something had to be done to minimize or eliminate the problem.

"They came up with the idea of interlocks (so all conveyors would shut down if one did), better control of product



Maintenance team leader Rick O'Brien hoses down slurry after a spill from one of the old pumps. When the new pumps come in there won't be any more overflows of slurry.

transfer systems and an alarm system to warn that a conveyor is down," said Al.

The new interlocking conveyor system should be entirely in place in a year.

Rick O'Brien, maintenance team leader, said his area of about 80 employees is going through the same clean-up process, with safety and production also being the main motivators.

Rick's group has also identified equipment issues that can be addressed to improve cleanliness on the floors and general health and safety.

"This is an old building,

from 1948, so we're trying to modernize pumping systems. The old pumping systems caused spills of slurry all over the floor," Rick said, noting that although there are drains, the slurry spills would nonetheless build up and create a tripping or slipping hazard.

"We're also upgrading lighting. The old lights aren't as bright as the new lights out on the market," he said.

"The clean-up project gives the employees a better environment to work in. It makes them more productive and gives them a better sense of safety."



Al Beers

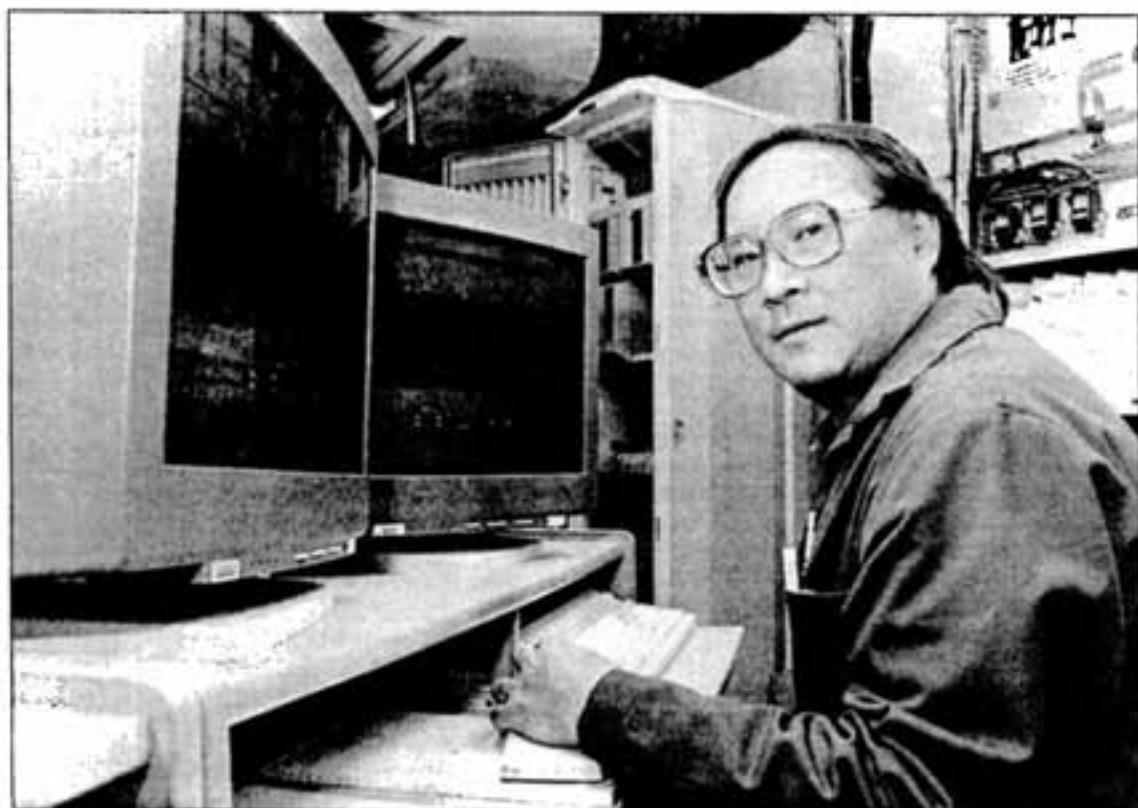
Shipping plants are much cleaner now."

A united management and employee approach to a serious problem made the simple clean-up solution work, he said.

"We had a total commitment from Brian Cowx, the general foreman here," said Al. "It was his influence that got it started."

Joining Al on the committee that spearheaded the clean-up procedure were Smelter foreman Lou Borraro, plant operator Chris Dikran, plant operator Maurice Gauvin, plant circuit opera-

Training need leads to cost and productivity gains



"It's a \$100,000 piece of equipment. So the cost to buy one just for training is too much," said Reg Hibi, instrument man at the Copper Refinery of the Foxboro Distributed Control System.

Any company can acquire the latest and best technology.

But making the most efficient use of it comes down to a 'people' issue, says Frank Moss, training supervisor with Central Maintenance.

Getting employees from all company operations to improve on process is the way Inco can gain on its competitors, Frank said.

"When we get a new piece of equipment all another company has to do is buy the same thing to match us. But it's people that can make the difference."

An example of the people factor came up recently for Frank and several other Inco employees at different plants and departments.

Sending employees to out-of-town training sessions on the Foxboro Distributed Control System (DCS), in operation at many Inco surface plants, has been a costly proposition since the systems went into use six years ago.

"It's a \$100,000 piece of equipment. So the cost to buy one just for training is too much," said Reg Hibi, instrument man at the Copper Cliff Copper Refinery.

"It's solid state equipment. It rarely breaks down. It's available about 100 per cent of the time," Reg said. "In the six years since we've been using the Foxboro it's never broken down."

Frank saw the merit in that idea when the topic of the 'hot spare' - a back-up unit ready to go should the active DCS go down - came up in casual conversation one day with Copper Refinery electrical instrumentation general foreman Mike Paquette.

"As soon as he said that the lights went on."

Frank and a team of Inco employees decided to use the

back-up Foxboro as a training tool to bring others to the level of instrument men like Reg.

A training manual is in the works for the one-to-four-week Foxboro DCS program, which will begin early in the new year.

Frank said training more people on the Foxboro is needed because it is a key piece of equipment at various surface plants.

"The Foxboro DCS takes the place of a control room," Frank explained. It is the nerve centre of industrial processes governing flows, temperatures, pressures, levels and more at the Copper Refinery, Central Mills, Smelter and Acid Plant.

So getting the training done here at Inco is an important step forward for productivity, Frank said.

Without the in-house training, for example, Reg would remain the only expert on the Foxboro in his area. Currently, two other employees in his area have a working knowledge of many aspects of it.

Having a few more employees well-versed on the Foxboro is important because of the importance of the Foxboro itself, said Roger Kitching, team coordinator for electrical instrumentation at the Smelter.

"It's important to keep the instrument men up to date on it," Roger said.

He said using the spare at the Copper Refinery for training will allow various plants to have a larger pool of experts to draw on while adding nothing to the cost of production.

Richard McKay, DCS supervisor at the Smelter, agrees using a spare unit makes the best sense.

"We were just using them for spare parts and for back-

up. It saves us a lot of money."

It's an idea his area has been on board with pretty much from the start.

"The Copper Refinery is providing the hot spare, we (at the Smelter) are providing the computer and inter-

face board to operate the Foxboro," Richard said.

The team effort among the Copper Refinery, the Smelter and Central Maintenance could very well lead to hot spare DCS Foxboros being put to use for training at several other Inco plants.

"It's just between the Smelter and Copper Refinery right now for training," said Richard, adding that the Smelter has eight people more extensively trained on the six Foxboro units it uses but more employees with that level of training are needed.

"We need more people on 12-hour shifts to be proficient on them, so that any problems can be rectified without having to call in someone off shift," he said. "Our purpose in the training is to get our shift people trained to a higher level."

A two-week training session today would cost about \$15,000 per employee. By doing it here at Inco, using in-house trainers, the cost of training should be only around \$15,000 to develop a manual, Frank said. The manual, however, is a one-time cost, unlike sending employees away for training.

"It's a very cost-effective way of doing business."

Aime Lefebvre, instrumentation foreman at the

Copper Refinery, said "we have a need for training because technology has moved so fast. The training program will give us a wider base of knowledge to solve problems."

Frank said the program is still being organized, but is on schedule to begin early in 1997.

The training of the first six students, from the Smelter, Copper Refinery and Central Maintenance, will begin soon after it's organized, Frank said.

He noted that organizing the training program has also been a good way to draw on the resources of several Inco operations.

"It's a team effort."



Aime Lefebvre

Port won't 'relax' safety

continued from page 1
factor, said Bob, is improved housekeeping finally starting to pay dividends.

"We're not seeing the housekeeping accidents we saw five years ago like people tripping over hoses," he said. "The emphasis now is on order. There's a place for everything and everything is in its place."

Bob credits strong union support, particularly the involvement of the workers safety representative Dan DeLuca, with helping the refinery improve its safety performance.

Dan agrees no solitary ac-

tion is responsible for good safety, but said increased awareness is the single biggest factor with renewed emphasis on compliance, training and incident reports all playing a role.

"It's a combination of things that make a strong system," said Dan. "Once that system is in place you have to go out and audit it to identify any deficiencies and correct those that are found."

"I don't like statistics because one serious accident can shoot down all your stats. We have to continue to improve."

We can't relax now."

The Port Colborne Refinery has 205 employees and consists of:

- A Precious Metals Refinery where gold, silver and platinum group metals are produced;

- An Electrocobalt Refinery where cobalt rounds are made; and

- A Nickel Processing area where slab nickel from the Manitoba Division is sheared and packed, along with nickel rounds and nickel pellets - the latter coming from the Copper Cliff Nickel Refinery.

SAFETY BRIEFS

Deflate tires to prevent injury

Releasing tire pressure before attempting to dislodge an object caught between multiple-piece rims can prevent injuries, the Ontario Natural Resources Safety Association (ONRSA) has reported.

A driver had just returned to his shop after a day of hauling lengths of tree from a stockpile to a sawmill in Ontario last May, when he noticed a rock between the front right drive wheels of his truck, the ONRSA said in its last monthly publication.

The driver attempted to remove the rock immediately by wrapping a chain around it, anchoring the chain to the trailer frame and then slowly backing up the trailer to pull the rock out as the wheels turned.

The rock didn't come out. It was dragged six to eight inches along the sidewall until the chain slipped free. The inside sidewall was damaged as a result and formed a bulge. The tires were fully inflated and likely very warm. But the operator didn't consider the bulge an immediate threat

because the tires were new.

He decided to lubricate the rock with motor oil and proceeded to hook the chain around the rock again. At that moment, with his face 10 inches away, the tire ruptured.

The force of the explosion threw the chain into his face and hurled him 10 feet into a pile of used tires breaking one of his ribs. He had his safety glasses on and he suffered no injury to his eyes.

But six months later, the worker still has a problem with muscle control and feeling on the right side of his face.

Here are some tips on preventive action:

- Release air from outer tire or loosen wheel nuts to free any objects between multiple piece rims or dual wheels;
- All truck drivers and operators should be made aware of the potential for tire ruptures and explosions and the appropriate measures for safe operation and maintenance.

Teens leave class for a 'day on the job'

There's a big difference between hearing about something and actually experiencing it.

Adam Turcotte of Lively District Secondary School made that observation after travelling underground at South Mine during the Take A Kid To Work initiative in early November which saw Grade 9 students from across Ontario accompany a parent on the job.

"It was different from any experience I've had," said Adam, 13, who accompanied dad Terry Turcotte, a senior ventilation supervisor with Mines Technical Services, on a tour that lasted an entire morning.

"It was exciting. If you've never been underground it's not what you'd expect to see. It's actually very complex and a lot more goes into making a mine work than you would realize until you go down and look at it."

While underground, Adam learned how fresh air is brought in, how air exits a mine, what fans do and why mines are ventilated. He also saw a raisebore machine, scissor lift truck, scooptram and jumbo drill in action.

Pat Wozny of the Non-Destructive Evaluation (NDE) group explained the testing procedures he was carrying out on an underground fan and employees working on a future return air raise in the 880 orebody explained the raiseboring process and why it is necessary.

"The unique aspect of the 880 orebody is that it's almost right underneath where his dad works in Copper Cliff," said Terry, visibly pleased to have his son along for the day.

"It's nice for the kids to come to the workforce and see what their parents do - and not only what their parents do but all the other careers that are out there as well. I think it's a great initiative."

The Turcottes were accompanied on their underground tour by Neil St. Amant and his 14-year-old son Craig, a student at Lockerby Composite School.

"It was pretty interesting," said Craig, who had never been underground. "The drifts were bigger than I expected them to be. Mining is an interesting job and this was a good learning experience. I met some nice people underground and I'd do the tour again if I could."

Craig's father Neil is an industrial evaluator with Mines Technical Services who was thrilled to participate in Take A Kid To Work.

"I thought it was terrific," said Neil. "It certainly puts things into perspective for kids when you talk about what you do and how it's done. To get to go underground has got to be a wonderful experience for them."

Underground wasn't the only stopping point for high school visitors.

At the Copper Refinery, Electrowinning operator Fern

Duval welcomed daughter Julie, 14, a student at French River Secondary School, into his workplace.

"My father told me what he did but I didn't really understand," admitted Julie. "Now I have a better idea."

Comparing it to "a giant battery", Fern showed Julie how acid is used in the process of making copper cathodes by having the copper attach itself to metal sheets.

During their day together, the pair were interviewed by reporter Stephane Laberge of French CBC-TV.

Over at the Nickel Refinery Powerhouse, stationary engineer Darcy Chenard came in on his day off to show daughter Lisa the plant.

"I didn't know what to expect," said Lisa, 14, a student at Confederation Secondary School in Val Caron. "It's a big plant with a lot of big equipment and we did a lot of walking. I know a little more about what my dad does now."

One of the things that struck Lisa the most were the number of signs reminding employees to wear hearing protection. "It was noisy," she said. "But I was ready for that because my dad had given me ear plugs before I entered the plant."

The Powerhouse supplies steam to the Inco Pressure Carbonyl plant and the Recovery Building for process purposes and also supplies cooling water to Recovery.

"It's a large plant," said Darcy, "and it's very complex to explain why all the different steam and water lines exist. I know it, but for Lisa this is her first experience."

Up the hill at Divisional Shops in Copper Cliff, Kyle Sasseville, 14, spent most of the day helping his father Terry, a machinist, re-assemble a water pump for Crean Hill Mine.

"I understand my dad's workplace better and I got a good idea of what the working world is all about," said Kyle, a student at Chelmsford Valley District Composite School.

"I had to get up early and put in a pretty long day but I learned a lot about how to use different tools for different jobs. It was a worthwhile experience."

During his visit at Divisional Shops, Kyle worked with an assortment of hand tools, the 50-ton hydraulic press and measuring tools known as micrometers, said Terry.

"It was a well-rounded introduction to the trade," he said. "Kyle did everything from using a hacksaw to cut keystock to making new gaskets for the pump."

"It always makes you proud to be able to show your children what you do. We take pride in our work. Kyle proved to be an excellent worker and it was a very enjoyable day."

The Take A Kid To Work program is intended to expose students to a variety of working world scenarios in a way the classroom could never duplicate, said Jessie MacIsaac, guidance counsel-



Neil St. Amant of Mines Technical Services adjusts the headlamp on son Craig, 14, prior to a trip underground at South Mine.



Machinist Terry Sasseville of Divisional Shops shows son Kyle, 14, how to install a new bearing on a water pump assembly.



Plant nurse Sheila Orlando of the Port Colborne Refinery and son Michael look on as industrial tradesman Mario Duva shows daughter Larissa the cable connection preparation required for the chlorine stack extension on the cobalt recovery circuit.



Darcy Chenard of the Nickel Refinery Powerhouse tests feed water for hardness while daughter Lisa, 14, looks on.



Julie Duval, 14, enjoyed spending the day with dad Fern in the Electrowinning area of the Copper Cliff Copper Refinery.

lor at Lasalle Secondary School.

"It informs our students of the requirements and skills needed for employment and motivates them to take school more seriously because they see education leading to employment," she said.

"Because of our unique economic circumstances today, students are stressed by the notion that education will not necessarily lead to employment. An experience like Take A Kid To Work shows them that what they put into school today will lead them to success tomorrow. It's an empowering experience because it shows students they can control the direction of their lives."

Carmaine Hall, cooperative education coordinator with the French language section of the Roman Catholic Separate School Board in Sudbury, said educators find it important that students start exploring career choices at a young age.

"Take A Kid To Work is a good 'stay in school' initiative because it demonstrates the relevance of school work to the working world," she said.

"Students find it positive and parents find it positive. In many cases the student didn't realize how hard their parents worked. This provides some good exposure for them."



Terry Turcotte, senior ventilation supervisor with Mines Technical Services, shares a laugh with son Adam, 13, in the dry following a morning underground at South Mine.

Career move opens up wide world of Inco

Moving from mine planner at Stobie to a member of the Corporate Internal Audit team has proven to be an 'eye-opening' experience, said Marc Duchaine.



Marc Duchaine has embarked on the experience of a lifetime with Inco.

From mine planning at Stobie Mine to Internal Audit, Marc has broadened his horizons through a training opportunity Inco assigned to him.

"I went from a mining environment to an environment that deals with all systems at Inco—surface plants, mining and administrative," said the 31-year-old native of Trois Rivières and graduate of Ecole Polytechnique in Montreal.

In September, he left Stobie Mine as a planner to start work as an auditor in Corporate Internal Audit at the General Office in Copper Cliff.

Marc is on a two-year loan to Internal Audit before he continues with other assignments with Inco.

"I didn't have experience in auditing per se. What they were looking for was someone with a technical background because we do a lot of audits in the operations area," Marc said.

"They wanted someone who'd be familiar with equipment and processes we use. They will provide me with training in auditing." So far he loves it.

"It's very exciting to have the opportunity, at this stage in my career, to get to know the diversity of Inco and to meet the people involved. I'm learning about the rest of the process. Inco is more than just the mines."

Internal Audit is a department that allows him to learn not only about the Ontario Division but also the Manitoba Division, the To-

ronto Corporate Office and other Inco operations around the world. In fact, Marc's next assignment is assisting on an audit of Field Exploration in Canada.

"We're here (in Internal Audit) to ensure that

appropriate controls are in place in all processes of the company, from development projects such as the McCreedy East Mine to the sale of market products and the costing systems involved. Our purpose is to im-

prove quality and profitability and to ensure there is compliance to policies and procedures," Marc said.

He said he feels a bit like a fish out of water since leaving his underground work.

"I miss going underground. But now I get to see the surface plants which I never saw before. It's an eye-opener."

Marc's former boss, Stobie chief mine engineer Harvey Buksa, wished him well on his journey through various Inco operations.

"The idea is to provide young people in the company with the chance to broaden their experience," said Harvey.

Carmen Sharpe, manager of Internal Audit, said Marc's job assignments next year will include an audit at P.T. Inco in Indonesia. "Marc has also expressed an interest in Voisey's Bay and once construction starts his mining background will make him ideal for an audit out there," he said.

Internal Audit has two main objectives in this training program, said Carmen. When Marc returns to the mines in two years, he will have had the opportunity to gain knowledge of systems employed in the company, such as pur-

chasing, contracts, marketing and how different functions in the company are organized. Along with this is the opportunity to get to know people and establish contacts that can be used throughout his career.

"Employees like Marc are the future of Inco," said Carmen. "Our second objective is to provide Internal Audit with first-hand knowledge of operations and engineering skills to complement the accounting, procurement and electronic data processing expertise that currently exists in Internal Audit. We need someone who thinks like an engineer."

Mike Sylvestre, manager of Mines Technical Services, said, "It's an opportunity for somebody up-and-coming to get a broad perspective of the company."

Mike added that Marc's training is part of Inco's planning for the company's future as well.

"He'll come back more knowledgeable and a better employee."

BRIEFS

FURNACE REPAIRS ON SCHEDULE

P.T. Inco in Indonesia expects to have its No. 3 furnace back on line in December and into full production in January.

An explosion in one of its three electrical furnaces, that claimed one employee's life on Sept. 10, resulted in an estimated loss of six million pounds of nickel in matte production.

Despite the accident, P.T. Inco reported a profit of \$14.5 million in the third quarter.

Net earnings for the first nine months of 1996 were \$54 million, compared to \$70.6 million in the corresponding period last year. The decrease principally reflected lower nickel price realizations, lower deliveries and increased unit production costs.

KENTUCKY PLANT EMBRACES TECHNOLOGY

Inco Alloy's Burnaugh, Kentucky, plant is quickly moving into the 21st century with the addition of two new state-of-the-art electrosag

remelting (ESR) furnaces.

The \$6.5 million project is the largest of this year's capital appropriations and is expected to be fully operational by mid-December.

Electrosag remelting is a proven melting procedure that improves product quality, process reliability and yield.

The furnace addition will support business growth in air-melted or vacuum induction melted ESR products.

"The addition certainly will increase capacity and put pressure on our competition," said Bob Jobe, supervisor of Burnaugh's Department B-30.

BUSY MONTH FOR INCO ALLOYS

In August Inco Alloys International (IAI) had its biggest bookings month so far in 1996.

The 6.5 million pounds customers ordered also beat the high number of bookings in August 1995, when 6.3 million pounds was ordered.

"These are large, chunky projects that provide sufficient volume to keep us busy," said Stan Kirk, commercial sales manager of IAI, in West Virginia.

But selling prices

were lower than average because of the competitive nature of the worldwide orders.

"We have had to remain aggressive to book the large international projects in light of the competition from Japanese and European mills, where business conditions are not as favorable as in North America."

COMPUTERIZED EXPLORATION

Personal computers have shortened the time it takes for scheduling and reports as information no longer is written by hand and given to a typist to prepare in the exploration department at Inco's Manitoba Division.

Autocad software has eliminated all hand plotting and allows geologists to do much of their own drafting. Geologists in the Northwest Territories communicate with Inco Exploration in Thompson, Man., via satellite telephone service.

But the most phenomenal changes are those that are used in the field.

"We can make calculations that were not possible before," said Merv Toderian, senior geologist with Inco Ex-

ploration. "Before our air magnetic surveys were hand-contoured and interpreted visually," Merv explained. "Now, through magnetic inversion calculations, the computer gives us a picture of what a particular body looks like underground."

59 JOIN THOMPSON QUARTER CENTURY CLUB

Everything was new in Thompson in 1971 and people "intuitively knew" they were starting something exciting, Manitoba Division President Ron Aelick told the latest inductees to the Quarter Century Club.

"Many people here tonight would remember hope and optimism, which were part of the fabric of early Thompson," Ron said to the group of 59 employees.

Part of that early history also included fewer conveniences, such as a paved road into Thompson, Ron said.

"I understand people might really remember things like driving through The Pas to get here—over 350 miles of dust and dirt."

But that didn't stop the company town from growing. In 1971, Saturdays at the Plaza and

Westwood Shopping Malls were crowded, largely due to the soaring birth rate at a time when Thompson was touted as the fastest-growing community in Canada.

Ron said the Quarter Century Celebration, held in October, was an opportunity "to help us remember what you have accomplished."

PRODUCT RANGE EXPANDS

Inco Limited has added to its product range of INCOFIBER, a family of nickel-coated carbon fibers.

The new series of products is specifically designed for injection molding applications. The products, coated with nickel at Inco's major European refinery in Clydach, provide highly effective electromagnetic shielding.

The INCOSHIELD products are thermoplastic long-fiber nickel concentrates containing nickel-coated carbon fibers in several different thermoplastic resins. They are used in telephone housings and portable computers.

Inco helps young weather wo

The most accurate forecast for Sudbury's weather on Nov. 20 wasn't on the radio that morning.

Nor did it appear on the evening news.

Instead, it was hatched the previous evening by four Environmental Science students in a portable classroom at Collège Boréal's temporary Notre Dame campus.

And Inco played a strong, supporting role.

In a day-long experiment worth 35 per cent of their final grade in meteorology, four students and a professor launched Inco-donated weather balloons and minisondes—devices which transmit temperature readings—from three different points in the region on Nov. 19.

Inco's meteorological office in Copper Cliff launched its own balloons and minisondes simultaneously and provided the students with additional data and weather maps.

"We were trying to get as much information as we could with the resources we had to make a prediction at the end of the day for the following day's weather," said student Robert Venne. "We wanted to see if it was something we could live with and whether or not the experiment was successful."

It was more successful than they could have hoped, said meteorologist Alain Boisvert, a consulting professor with Collège Boréal.

"The next day we got the minimum temperature right on, we predicted the winds coming in and the clearing conditions exactly as they happened," he said. "This class had the most accurate forecast in town and it was all based on sound weather information."

Collecting that information began at 7 a.m., two hours before the first balloon was launched before 500 eager students at St. Anne School in Hanmer, which incidentally has its own weather station.

Using surface charts from the night before showing temperatures to altitudes of 5,000 feet and studying wind conditions, the class projected a 9 a.m. temperature of -10°C at 5,000 feet, rather than the -5°C shown on the chart.

After the first balloon was launched and the data analyzed the prediction was bang-on, said Alain.

Inco meteorologist Graham Laporte, launching in front of the General Engineering Building, recorded identical findings.

"We tried to correlate our releases as closely as possible," said Graham. "I think the students were looking for variations in the temperature profile with height but our profiles were the same."

"Weather systems are macro-scale, not micro-scale and the weather maps you see on television stretch for thousands of miles. Because we were only 30 km apart I really didn't expect any variation at that distance."

Remi Jean keeps one hand on the controls and both eyes on the weather balloon as he inflates it with helium for the trip skyward.



Remi Jean of Collège Boréal runs the length of the St. Anne School parking lot with

minisonde in hand (not shown) waiting for the weather balloon to reach sufficient height so that the temperature tracking device can be safely let go without hitting the ground.



College students Angela Frappier receive temperature readings received by their classmates. Angela then explains what the read Garrett Hamel, 7, son of Crear Elwood Hamel and Grade 7 student daughter of Creighton Mine fi



Collège Boréal consulting professor Alain Boisvert, right, and student Remi Jean tie the Inco-donated minisonde to the end of a string attached to the weather balloon. The small minisonde transmits temperature readings.

The students launched a second balloon in the Ramsey Lake area at 2:30 p.m. with Graham again following suit outside General Engineering, only this time Graham tracked the balloon longer for wind speed and direction. The class returned to Hanmer that evening for a third and final launch.

At the end of the day they collected the data, analyzed it and made their prediction. "We saw colder temperatures coming in from Val D'Or and a wind shift from northwest to northeast," said Robert. "We predicted colder temperatures than anybody else, even Environment Canada."

For his part, Alain was thankful for the project's success and thankful that Inco helped make it that way.

"The purpose of this experiment was to illustrate to future weather technicians that there is a mammoth amount of weather information out there from many different sources and much of it varies," said Alain.

"It was very important to correlate our launchings with Inco's so we had real-time data to compare with. We were on the phone with Graham at several points during the day getting real-time data because we wanted to know if his information would be different than ours. In the end it was almost identical."

"Inco's support gave credibility to our entire exercise."

The students in the exercise appreciated the chance to get out of the classroom and practice what they had been

taught.

"We collected a lot of information," said Annette Gladu. "I didn't realize there was so much to learn. To do a forecast like that you have to have all the information and have it at a specific time."

In essence, the students were acting as full-blown weather technicians, an experience they found enjoyable as well as educational.

"The good thing about field work is you can apply everything you learn in class—from temperatures to air mass—all in one day," said Remi Jean. "It's easy to learn in class but in the field it's more hands-on. It's a more enjoyable way to learn."

Classmate Angela Frappier concurred.

"What we did really helped

associate our theory from class with hands-on application," she said. "Something learned first-hand stays with you longer because you actually experience it. We discovered it's very hard to predict the weather because you never know what's going to happen. There's a lot of work involved."

Graham has been making weather forecasts at Inco long enough to know the difficulties involved and the advantages to having your own weather station.

"Our forecasts are probably 70 to 80 per cent accurate over a six-hour period because we're allowed to analyze the maps and the data ourselves. It's not being interpreted for you by someone located in another centre. Our minisonde traces are very accurate."



Sometimes teamwork is required to safely attach the string to the weather balloon, as Alain Boisvert, Annette Frappier and Remi Jean discovered. The other end of the string is attached to the minisonde.

Teachers widen knowledge base



Robert Venne study the minisonde launched by the maintenance foreman Candace Gravelle, 12, and Ed Gravelle.



Annette Gladu ties a string around the weather balloon in preparation for its launch into the atmosphere. Looking on behind are some of the 500 students from St. Anne School in Hanmer who witnessed the experiment.



Some 500 school children turned out to watch the first balloon launch of the day.



Hundreds of young eyes turned skyward as the colorful red weather balloon took flight and quickly disappeared from sight above St. Anne School in Hanmer.

United Way support shines in '96



Jeff Grieve and employees of the Copper Cliff Copper Refinery raised more money than he had planned for on his thermometer, so he added an extension.

In keeping with a long tradition of strong support for the United Way, Inco employees have come through again for the 1996 campaign.

"We're optimistic that we'll top last year's total of \$200,000," said Brian King, co-chair of the Inco/Steelworkers Employees' United Way

Campaign.

"About 22 areas have increased donations."

While many plants and mines did well to improve their participation levels, Brian points out that places which already had high levels of participation from last year managed to keep up their support.

"For Creighton, for example, to hold their own at \$31,000 is an amazing accomplishment." Creighton is also holding firm at the high participation level of 75 per cent.

In the Copper Refinery the final tally will be about \$12,000.

"That figure is about double the 1995 campaign total,"

noted Jeff Grieve, United Way canvasser and senior environmental analyst with Safety Health and Environment.

"In addition, we have more than doubled our participation rate in the Copper Refinery, from 23 per cent last year to roughly 50 per cent this year," Jeff said.

"And that's what matters. It's not the money that's as important as the number of people. It's like planting seeds. Sooner or later it's going to grow. Next year I'll use that participation increase to get more

money."

Michelle Liebrock, executive director of the United Way, said Inco employee contributions mean a lot to the Sudbury community target of \$1 million, which she expects this year's campaign will reach.

Inco employees will likely surpass their contribution total of \$200,000 and for that, said Liebrock, "the canvassing team and the employees deserve a salute."

The company also makes an annual corporate donation of \$120,000.

SOME IMPRESSIVE FIGURES

The contribution of Inco employees to the United Way is shaping up impressively as campaign organizers compile final figures.

- Total money contributed by Inco employees this year – expected to top \$200,000.
- Total money contributed by Inco employees since they started donating in 1983 – \$2.4 million.
- Number of Inco canvassers – 80.
- Largest sum collected at one plant or mine site – \$31,000 at Creighton Mine.
- Largest percentage increases from last year:
 - (i) 79 per cent for the 387 employees at the Copper Refinery (from \$6,566 to \$11,769).
 - (ii) 47 per cent for 344 employees at the Nickel Refinery (from \$13,902 to \$22,000).
 - (iii) 35 per cent for the 217 employees at Clarabelle Mill (from \$6,700 to \$9,100).
- Total money raised at United Way throughout Sudbury for 1996 – expected to be \$1 million.

Canvasser experiences United Way magic



Guido Chezzi, left, and Mitch O'Connor, both of the Copper Cliff Nickel Refinery, are proud of the money their fellow employees donated to the United Way. Employees at the Nickel Refinery registered huge increases in both donations and participation. The results were especially gratifying to Guido, whose experience with the Victorian Order of Nurses allowed him to see first-hand how United Way dollars benefit the community.

Guido Chezzi is giving back to a group that has helped his family so much in recent years.

"I've always donated to the United Way, but I never had any experience with them," said Guido, a 32-year Inco employee, a trainer and millwright at the Copper Cliff Nickel Refinery.

In the last few years, however, his family has come to know the important role the United Way-supported Victorian Order of Nurses (VON) plays in Sudbury.

"I've been touched by the United Way. The VON nurses came twice a day from November to March last year when my wife was sick – at no cost to us. They never missed a day. And you remember what last winter was like."

A few years ago, the VON also provided care for his ailing father during the last four years of his life.

"The VON nurses were very compassionate," he said.

Maybe that's why Guido has felt a special incentive during the last month or so as he helped raise funds for the United Way from his fellow employees at the Nickel Refinery.

"It's time I do something for somebody – they looked after me."

Guido has had success in improving donations.

He became involved in the United Way campaign in 1994 when he helped increase employee participa-

tion to 49 per cent from 27 per cent and increased donations to \$13,902 from \$5,784.

This year's participation rate was 53 per cent of the 344 refinery employees with donations totalling \$22,000.

Guido said he was heartened by the fact that after presentations – including a video, slides, discussion and personal contact – so many employees decided to donate money from their paycheques.

"Management, staff and employees are 150 per cent behind this."

Guido and canvassers at

operations throughout the Ontario Division spent October encouraging employees to donate to the non-profit United Way.

"This is the most we've collected," said Mitch O'Connor, of the Nickel Refinery's Employee Services group. "People know they have to help with all the government cutbacks."

Mitch is quick to credit Guido's efforts and those of all canvassers in general.

"Guido was the only canvasser at the Nickel Refinery. He worked so hard he lost weight," Mitch said with a friendly chuckle.

WHERE YOUR MONEY GOES

The United Way supports 18 non-profit organizations in the Sudbury region. They are:

- Big Sisters
- Canadian Hearing Society
- Canadian Mental Health Association
- Canadian National Institute for the Blind
- Canadian Red Cross Society
- Elizabeth Fry Society
- Housing Resource Centre
- John Howard Society
- Lakeside Centre
- Le Carrefour Francophone de Sudbury
- Pastoral Institute of Northern Ontario
- St. John Ambulance
- Sudbury Family Service
- Scouts Canada
- Sudbury Family YMCA
- Sudbury Multicultural Folk Arts Association
- Victorian Order of Nurses
- YWCA Geneva House

Greened berm draws birds and bouquets

It's covered in white snow now, but a roadside berm along Highway 17 near Copper Cliff attracted a lot of praise and attention this fall for its new, greener look.

The 1,500-foot by 250-foot berm area, which slopes gently down from the Inco rails outside the Smelter Complex, was previously a steep, slag-covered embankment.

Reclamation work began three years ago to reduce the steeper grade and allow the slag to be covered or 'capped'

by 21,000 cubic yard of clay this summer.

The area was hydro-seeded with a mixture of water, fertilizer, grass seed and a binding agent of recycled paper mulch in late August. As summer gave way to fall, the first blades of green grass began to emerge.

"It's been an ongoing project as money became available and it's very visible to anyone leaving the city's west end towards Copper Cliff or anyone entering the city

from Walden," said Paul Yearwood, coordinator of De-commissioning and Reclamation.

"People who have nothing to do with Inco have mentioned to me how green it was becoming, particularly in the early fall when the new grass was really taking root."

"Our plan now for the seeded area is to probably put some small trees and shrubbery there next spring and let nature take its course. Experience has taught us that once the grass is established, the birch and poplar will come in on their own. We don't want it to be manicured, we want it to look as natural as possible."

Approval of the greening effort has come from many corners, including migrating

Canadian geese who made the newly seeded berm a regular stop on their flight route.

For weeks at a time, the Public Affairs office in Copper Cliff received calls from employees and citizens informing it of flocks numbering anywhere from 20 to 50.

The latest greening effort, along with all that preceded it, is also welcomed by Sudbury's tourism community.

"It has not gone unnoticed," said Erin Downey, executive director of the Rainbow Country Travel Association. "I've been dealing with the tourist public for 10 years now and people who were here 15 or 20 years ago and come back can't believe the changes."

"Regreening is extremely important and it does pay off."

People want beautiful surroundings and want to see wildlife."

Downey said this latest greening effort is particularly beneficial because of its strategic location.

The greener entrance to a city will always leave a more favorable impression than a darker, sparsely vegetated area," she said. "In Sudbury that stark contrast still exists."

Regreening in any area, particularly an entranceway to the city, has benefits that go beyond the tourism sector, said Paul Tosolini, project manager with the Sudbury Regional Development Corporation.

"On a personal note I drive that area and I've seen the greening first-hand," said Tosolini. "Friends of ours from Sault Ste. Marie have commented on how much nicer that area looks, so on a personal level I have heard positive comments."

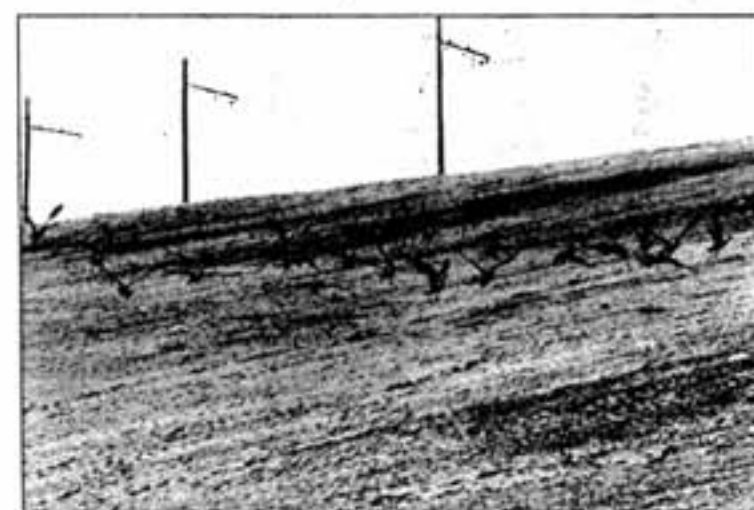
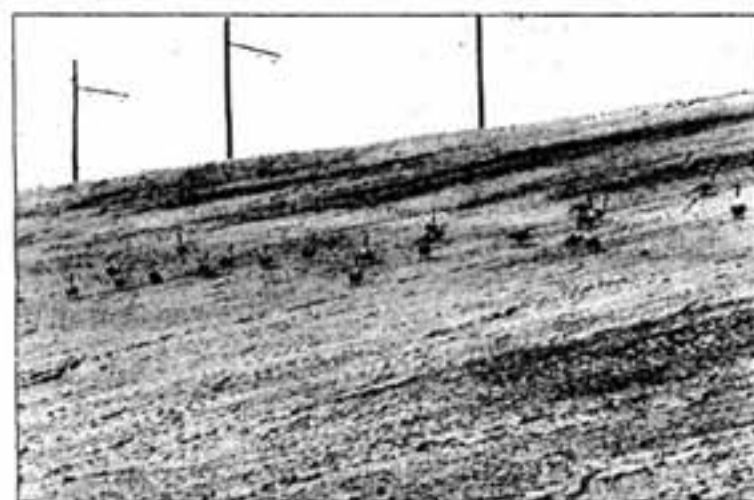
As part of his job, however, Tosolini looks at anything affecting the community from a business perspective as well as personal.

"It has an impact," he said. "Anything that enhances the image of a community enhances people's perception of what that community has to offer. Prospective clients who might be looking to expand their business regard quality of life as very important and our ability to make a positive impression sometimes makes the difference."

"It's one of the tools we use and it's extremely important. It ranks very high, just behind hard services, on the list of criteria businesses use to make decisions on expansion or construction."

Work on the berm will continue next year.

A small piece not visible from the road has yet to be completed and a top portion northeast of the tracks was graded but still requires clay capping and seeding.



The freshly revegetated berm along Highway 17 west proved a popular gathering spot for Canadian Geese this fall before their migration south. This flock, like several others spotted at the site, stopped to feed before being interrupted by a noise that startled them into taking flight.



Before the slope could be seeded, trucks and graders were busy capping the area with 21,000 cubic yards of clay.

TAILINGS TEMPTING TARGET FOR MIGRATING BIRDS

Reclamation efforts in the Copper Cliff Tailings Area have long attracted attention and visitors from around the world.

But it's the latest crop of feathered visitors that are attracting the attention of the Ontario Division's Wildlife Committee.

The six-member committee is tracking birds that use the Tailings Area as a resting site during migration, particularly shore birds, said member Chris Bell.

To help the project along they enlisted the aid of Agricultural employees working in the area, who Chris said were very enthusiastic to help out.

In early November, Chris received a call from environmental analyst Darl Bolton telling him that an Agricultural crew had spotted some unique birds.

Mike Sleik, John Stafford and Jerry Zanuttig were working as a straw crew that day and the birds were apparently attracted to the straw, said Darl.

Because of the area in which they work, the trio had become amateur bird-watchers, with Jerry keeping a pair of binoculars handy and the group keeping its own bird book nearby.

"When I went up to investigate the sightings at around noon that day I saw three tundra (or whistling) swans, two snowy owls and 79 brant geese, which are black and white and smaller than the Canadian goose," said Chris.

"You'd probably see one or two snowy owls every year, but as far as I know there's never been tundra swans or brant geese before. They were probably flying further north of here during their late fall migration and got pushed south by some weather system. I guess they saw the Tailings Area as a good place to drop in and rest up before moving on. The Tailings Area offers an open habitat with plenty of shoreline and birds like that sort of thing."

Other rare visitors spotted in the Tailings Area include sandhill cranes, snow geese and cattle egrets.

Joining Chris on the Wildlife Committee are John Lemon, Carolyn Hunt, Brian Bell, Bob Martindale, Glen Watson and Paul Yearwood.

Metallurgical Society honors Inco VP



Inco Vice-President Dr. Bruce Conard was honored by the Canadian Metallurgical Society for the time and effort he devotes to enhancing the society's activities and services.

recognition of the time and energy he has devoted to enhancing the activities and services of the Society.

"Young scientists need to realize that active involvement in professional societies offers both professional and personal rewards," he says. "I feel I have received far more than I have given."

Bruce cites three benefits to membership in the Society and other such professional associations.

First, associations provide information sharing opportunities by linking people with mutual interests.

Second, associations help educate their members. "Young professionals today must be able to move rapidly between fields, to learn quickly and to broaden their interests in order to meet their ever-changing job responsibilities," he explains.

"In my 25 years at Inco I have changed disciplines several times. I was able to make these moves because of the educational support provided by the Metallurgical Society's courses, seminars, and colleagues," he says.

Bruce says the third key benefit of membership in a professional society is the ability to influence governments and the general public by providing input to draft government policies and regulations and by helping the public understand the important contributions of metal science and the mining industry. "This has

to begin at the elementary school level," he says. "That's where we need to attract students to the science profession."

Bruce got involved in science at a very young age. "Growing up in the 1950s, my father was a chemist and since I always did well at science and math I got a lot of encouragement from my parents and my teachers to pursue science as a career," he says.

After receiving his Bachelor's degree in Chemistry in Illinois, his Doctorate in Physical Chemistry from Iowa State University and after a post-doctoral appointment at the University of Kansas, Bruce joined Inco Limited in 1973.

As senior research chemist in Pyrometallurgy at Sheridan Park in Mississauga, he spent many years working to apply his research findings to improve Inco's operations. He then became section head of Electrochemistry at the Inco Lab, moved to section head of Hydrometallurgy in 1988, and served as director of Process Research until his appointment to his current position in 1995.

As Vice-President - Health Science Advisor, Bruce deals with a number of complex occupational health issues. "The challenges today are enormous in the fields of environment and health because humans and other living organisms are so complex and the environment we live in is so complex that it is extremely

difficult to pin down exactly what factor (or set of factors) is causing a disease or ill health," he says.

"The scientific challenge is to isolate specific causal relationships in order to take the appropriate actions to alter existing industrial practice or to design new processes to protect our employees, our community and the natural environment.

"My challenge is to look at the health of Inco workers and of the general population as it relates to Inco products or processes and assess the possible hazards and risks."

Bruce also sees one of his roles as linking the knowledge of various disciplines to answer health questions related to industry and to help Inco's plants maintain appropriate occupational health standards.

He is taking an aggressive approach in bringing sound health science to the international community. "As the world is becoming a smaller place, I believe it is beneficial to link with government and regulatory agencies responsible for health and safety all over the world. Working through the United Nations and the Organization for Economic Cooperation and Development, we are trying to standardize regulations to protect workers and the environment around the world. As you can imagine this is quite a challenge given the range of developing and developed countries that exist today."

Dr. Bruce Conard, Inco's Vice-President - Health Science Advisor in the Toronto corporate office, was recently awarded the Canadian Metallurgical Society Silver Medal. He was

also honored with an appointment as Fellow of the Canadian Institute of Mining.

A 20-year member of the Metallurgical Society of the Canadian Institute of Mining, Bruce received the medal in

LETTERS TO THE EDITOR

Dear Editor:

On Sunday, Sept. 15, 1996 two Memorial Plaques were unveiled at a Dedication Ceremony conducted by the R. L. Beattie (Ont. #224) Branch of the Royal Canadian Legion. The plaques are to commemorate those Canadians who served in the Korean War (1950-53) and those Canadians who served with the forces of the United States of America in the Vietnam War (1960-1975). The plaques are proudly displayed on the front of the Legion Hall at 41 Market Street in Copper Cliff.

On behalf of the members of the Royal Canadian Legion, Branch 224, Copper Cliff, I would like to extend our thanks to Inco Limited for its contribution of the copper plate on which the Memorials are inscribed. Without the assistance provided by organizations such as yours, Memorials like this would not be possible.

Yours sincerely,

Sandra Manson
Secretary
Royal Canadian Legion
Branch #224

Dear Editor:

On behalf of the organizing committee I would like to thank you for your generous support of the 7th Annual Person's Day Breakfast.

Once again, Sudbury has lived up to the past six years of successful Breakfasts by raising funds for the Women's Legal Education and Action Fund (LEAF).

This year we raised approximately \$20,000, a portion of which will be kept in Sudbury to support our book project in secondary schools, including the amount of \$1,000 donated by Sonja Smith. The majority of the funds, however, will go to LEAF to assist them in their groundbreaking work in support of women's equality.

Please accept our sincere gratitude as your contribution and continued support will assist to ensure LEAF continues in its efforts on behalf of girls and women.

Yours very truly,

Barbara Giommi

Dear Editor:

On behalf of Scouts Canada, Sudbury District, I would like to express our thanks and appreciation for the Scouts Honour billboards that were put up in the city.

The exposure that they gave us was tremendous. Many people mentioned seeing us out in the public eye. The value of such public relations is immeasurable to our organization. A copy of The Triangle has been sent to both our Provincial and National offices. I am sure that they, too, will find this promotion for Scouting to be of very high quality.

We also appreciate the exposure that our volunteers received through your effort. All of our leaders are volunteers and give a big commitment to Scouting. It is nice to see them recognized in this fashion. Many thanks for your support of Scouting in the Sudbury District.

Yours in Scouting,

Anne A. Fraser
District Secretary
Scouts Canada
Sudbury District

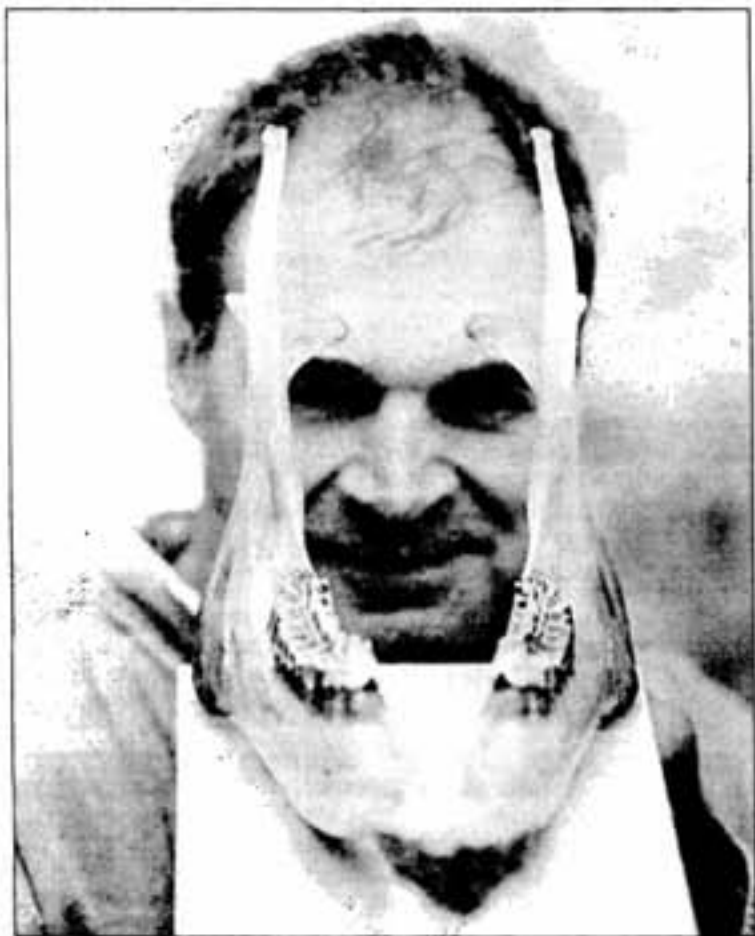
Dear Editor:

Thank you for your kind and generous donation towards the \$150 scholarship that I received. It is companies like Inco that encourage students like me to continue developing our special talents.

Thanks again,

Shirley Zhou
(Piano)

Hunting instructor stresses 'safety first'



Oliver Barriault gazes into the teeth of an adult calf. He notes this is the only method of learning a moose's age. Oliver teaches hunter safety and offers a variety of hunting courses throughout the year.

It's a chilly fall morning as the sun begins its daily ritual casting an orange hue across the lush forests. A hunter stands quietly, anticipating, hoping to sight the large gangly animal he has grown to respect.

The moose has relocated to a higher land, as the practised hunter is quick to realize. Anticipating the area the moose will feed on next, he waits. A moose is seen far off in the distance and the hunter begins to approach the animal ever so quietly, careful not to make a sound.

He comes within 30 feet of the animal and slowly, carefully, reaches for his camera.

Oliver Barriault, a hunting and photography enthusiast, often couples his two hobbies during a fall moose hunt. Oliver, who stalks his moose, says this technique allows the advantage of observing other game—and his camera is never far from his side. Armed with a 200 mm lens, Oliver straps his camera around his waist and says he has taken some "excellent" wildlife shots over the years.

"For hunters, it's the anticipation of seeing game . . . the surge of adrenalin that comes when you see an animal in the wild."

His love for hunting and nature caused him to become more heavily involved in the sport by teaching courses designed to improve its safety through education. He is adamant in his belief that hunters must be educated or they could eventually lose their sport.

A welding instructor at the Copper Cliff Copper Refinery, Oliver began teaching hunter safety courses three decades ago in 1966. At that time, the course consisted of three hours of instruction followed by a 20-question exam.

Hunter safety courses were

originally introduced in Ontario through the Federation of Anglers and Hunters, of which Oliver is a member. In 1963, the course became mandatory for all new hunters seeking a licence.

Today, the course consists of 15 hours of instruction followed by an exam under the direction of the Ministry of Natural Resources (MNR).

Participants in the safety courses are taught the proper use of firearms, conservation, game identification, bow hunting and survival. While the courses tend to be popular in the fall, Oliver is busy teaching hunter safety throughout the year.

He advises new hunters to take the course early to avoid missing the fall season because of a backlog in MNR exam vacancies. In some cases, a hunter could wait two to three months to write the ministry exam as approximately 17,000 Ontario residents write the test each year.

"Education is important to start off well," said Oliver. "The future hunters are versed on the kinds of game and need to know their firearms to be safe. The hunters need to know the capabilities of their firearms and the ethics of respecting the game."

Oliver quoted a biologist friend on the importance of ethical hunting. "Moose are a living being and have a right

to well-being.' We, as hunters, hunt game and have to respect that and be well-educated."

Oliver teaches future hunters in the basement of his Val Caron home. In instances where the number of students warrants a larger facility, he rents a hall.

The ranks of future hunters have expanded to include women, said Oliver.

"We need more women," he said. "The sport is changing and is no longer male-dominated."

For Oliver, the opportunity to teach hunter safety has been self-rewarding. "I have gained so much experience teaching and I love to convey that information."

Oliver may have a further opportunity to convey his knowledge if a special course in advanced hunting is realized. Ontario Federation of Anglers and Hunters (OFAH) president

Gerry Courtemanche, of Inco's Power department, approached Oliver to resurrect the program initiated in 1990 by the club and the province. At that time, seven senior ministry biologists designed the advanced moose hunting course and chose 12 instructors across the province to offer it. Oliver was one of those asked to deliver the course. He toured southern Ontario and parts of Northern Ontario and was well-received with his advanced information before the program was cancelled, said Oliver.

The OFAH is hoping to begin offering the course again in the next year or two with

Oliver as its instructor. The nine-hour course would focus on ecology, biology of moose hunting, firearms and selection.

"You don't have to be a hunter to take this course. It's suitable for camera buffs or naturalists," said Oliver, adding the course will teach participants how to get close to the animal.

"Every moose has a different character—like people. Some you can walk up to and others you can't get within a quarter-mile and their gone. You need the proper wind and to do things slowly."

In addition to hunter safety, Oliver also teaches a federal Firearms Acquisition Certification (FAC) program. He is planning to offer a course in map and compass reading this winter, a survival course and hunter education, all through the Outdoor Study Group of Sudbury. In his spare time, Oliver acts as a volunteer deputy conservation officer for the MNR.



Oliver Barriault, hunter safety instructor and Inco welding instructor, poses with antlers from a seven-and-a-half-year-old bull moose.



Inco welding instructor Oliver Barriault demonstrates the safety of the district's first child-friendly bear trap by placing his own hand under the fallen door. The material for the trap was donated by Inco and the trap is now used by the district's Ministry of Natural Resources (MNR).

'FRIENDLY' BEAR TRAP EASES SAFETY CONCERNS

One man's love of nature and adherence to safety prompted him to design the district's first child-friendly bear trap.

Oliver Barriault, a hunter safety instructor and part-time volunteer deputy conservation officer, designed a child-friendly bear trap now used by the Sudbury District Ministry of Natural Resources (MNR) and Cambrian College students. Oliver, a welding instructor at the Copper Refinery, solicited the help of his brother Norm Barriault, an Inco forklift operator, to build the trap.

Still in use by the MNR, existing bear traps are considered potentially dangerous in urbanized areas. "The way these traps are designed, the door closes violently," said Oliver. "If a child ever got caught in the door, they would be injured or killed. It was a safety concern that needed to be addressed."

Oliver relayed his concerns to MNR conservation officer Steve Masse, and both agreed a child-friendly trap was needed equipped with doors that would close more gently. Masse said with existing traps being set in urban areas the possibility of an injury exists.

With these safety concerns in mind, Oliver began designing a door with a lighter counterweight to ensure a slower closure. It was crucial the door close quickly enough to trap the bear, yet slowly enough that a child would not be hurt if the trap was activated. With the design in place, the Barriault brothers began the actual construction. A piece of scrap commercial grade aluminum, donated by Inco, was modified to fit the door. The trigger mechanism for the cage was completed during Oliver's lunch hours at Inco. The first trap was finished in the summer of 1995 and two additional traps will be constructed this winter. The Copper Refinery has agreed to let him use the training centre for construction of the traps, said Oliver.

The trap door is activated when a bear ventures into the trap and steps on a steel plate inside, triggering the door to close. With the use of the counterweight the door closes slowly and its light weight reduces the risk of injury. An added safety feature of the newly designed trap permits the conservation officer to open the door with the pull of a string while safely inside a vehicle, using a counterweight system.

This is very important, said Masse. "With standard traps they had to be opened by the conservation officer with a gun held to the bear's head—just in case."

Another unique feature of the trap is its light weight. The trap is easy to load and set, said Oliver. These two features will come in handy for Cambrian College students who, through their course of study, have been contracted by the ministry for bear removal.

Oliver is seeking donations from local conservation clubs to support the construction of additional traps. The cost of one trap is approximately \$300.

"This is very exciting and very important—without the traps a child could be seriously hurt or even killed," said Oliver.



INCOME ideas

by Susan LeMay, CMA

Timing is a crucial part of everything we do. Christmas presents in February are out of season. Are they early for next year, or late for last year?

When thinking of investments and their tax implications, December is an important month. Revenue Canada uses Dec. 31 as a cut-off each year for individuals and their tax liability. For example, if you receive a large cheque for wages in January, the money is included in your income for that calendar year even if you actually did the work in December, or even earlier.

Capital Gains and Losses

For quite a few years, timing on selling or buying stocks was not important. We had the Capital Gains Exemption. Many of us did not use all our exemption, so timing didn't matter. Now it does. The philosophy is to postpone including gains in income, and to ensure that if and when there are losses they are used to optimally offset the gains.

Potential Losses

Let's look at potential losses first. No one likes to admit that a stock is a 'dog' and that purchasing it was a mistake. So, postponing the sale in the hopes it will increase in value is a common strategy. If the investment warrants it, that is great. If it doesn't, then timing the sale is important. Now is the time to check and see if there are losses that are never going to be recovered. If there are, you should consider selling before the end of the year. That way, if you had gains on other investments sold this year, you can net the gains and losses and lower the total you'll pay tax on in April 1997.

Sounds too good to be true? What's the downside? There really isn't one for quite a few years. If you have losses and no gains this year you can carry forward those losses to use against gains in the next few years. But, you cannot use those losses to reduce your taxable income this year.

Potential Gains

At this time in the year, you should look seriously at delaying the sale of investments that are going to create a gain until January. That way, you have 16 months before you have to pay tax on that gain. The caution I add

here is that specific circumstances differ and there may be other very good reasons for not delaying the sale. If you are going to need the funds for another purpose, before you say you HAVE to sell, consider bridge financing. Banks are often pleased to provide short term loans when you need cash to pay out and there is a delay in receiving the funds to make the payment. There is also the possibility that you may incur losses to offset those gains. If you already have unused losses, then it does not have as strong an impact on your situation.

RRSPs and Timing

The most consistent advice on Registered Retirement Savings Plan (RRSP) investments is to make the investment early. There are convincing statistics to show that you will have much more money if you contribute at the beginning of the year rather than waiting until the February 28 deadline of the next year. This is all true.

There is also another issue that has caught more than one couple where one spouse earns more than the other and makes spousal RRSP contributions. If a situation arises where they need to cash in the RRSP for some reason, they should be aware there is a three-year rule on spousal contributions.

Simply stated, if one spouse made contributions in the last three years to any spousal RRSP and the money is drawn out, it is taxed as income for the contributor. Revenue Canada allows taxpayers to contribute in January or February for the previous year. However, when funds are withdrawn they look at calendar years.

So, I could have made my last contribution to a spousal RRSP in January of 1995 and claimed the RRSP deduction on my 1994 tax return. If we decide to take the money out of the RRSP, in 1997 it will be included in the income of the spouse who took the deduction on the 1994 tax return.

If the money had been contributed in December of 1994, then it would be taxed as income of the other spouse whose income would be lower. What a difference a few days could make.

There are some opportunities and pitfalls associated with the end of the calendar year, so it is wise to take a few extra minutes to assess your financial affairs so you can better prepare for a Happy New Year.

LET'S TALK SAFETY

with Ron Rafuse

Proper safety allows no room for shortcuts

All areas of the Ontario Division are now well under way with the *Getting To Zero* safety workshops.

Sit back and think for a few minutes how it would be to have zero injuries in the workplace — no pain, no suffering. There are people in each of our workplaces who do not get injured!

There are entire work groups that go for many years with zero injuries doing the same type of work that results in other people continually getting injured.

We have to ask ourselves why these groups and individuals do not get injured. Look at the safety scales posted in areas around your plant. These are the people who care for each other and take pride in what they do and how they do it.

They follow the rules and procedures on the job. Their equipment, tools and work areas are neat, clean and organized. The most important aspect of the way they work is to follow the standards and rules that are in place and not take any shortcuts to get the job done.

If you know some of these people personally, you will find they also take pride and care to prevent accidents or injuries at home and do not take shortcuts or unnecessary risks off the job.

Taking shortcuts around procedures and rules is something that cannot happen. These procedures and rules have been well thought out and many have been developed as a result of lessons learned from workplace accidents.

Other procedures are law under the Occupational Health and Safety Act. They are in place to protect each and every one of us on the job. It takes an effort from everyone to ensure the safety of the workplace.

An attitude survey was conducted in late September and 27 per

cent of those asked said they take shortcuts to get the job done. Nineteen per cent of those said they felt the shortcuts were tolerated by their supervisors. When supervisors were asked, eight per cent of those surveyed said they took shortcuts and felt it was tolerated.

The same survey was conducted in September, 1995 and the number of respondents taking shortcuts was higher. In that survey, 32 per cent of those asked admitted taking shortcuts and 30 per cent felt it was tolerated. Among supervisors, 18 per cent admitted taking shortcuts and 20 per cent believed shortcuts were tolerated.

As a result of our workshops, safety audits, Occupational Safety, Health and Environment (OSHE) committees, training and education, things are improving in the workplace.

Safety is a commitment we cannot give up on. There is only one way to do our work and that is the best way we know how. Following and enforcing the rules and standards in our areas of work so that we prevent injuries is critical.

Each of us — whether performing a task or supervising a task — has a role to play in ensuring standards and rules are known, followed and enforced, with no shortcuts in safety.

As we prepare to start our winter activities, remember the rules and standards with snowmobiles and winter equipment (i.e. snowblowers) off the job. Every year people are killed or seriously injured because they took chances with equipment. In many cases, young children are injured because their parents didn't supervise or enforce the rules with winter equipment.

Remember, 'shortcuts with safety don't pay.'

Ron Rafuse is Superintendent of Safety in the Ontario Division

EVH

FOR YOUR HEALTH

From the Occupational Medicine Dept.

Lifestyle changes can help prevent heart disease

Heart disease kills more than 54,000 Canadians a year, causing more deaths than all cancers combined.

Heart disease is blockage of the vessels that directly feed the heart muscle itself. This may lead to angina pain or a heart attack when flow is completely blocked off. The condition is caused by fat and cholesterol deposits that form a dense plaque that builds up over many years.

If you have never had a heart attack, your goal is primary prevention by changing your lifestyle. If you have had a heart attack, your goal is secondary prevention by making healthier choices that will decrease your risk of another heart attack.

There are several steps you can take to begin leading a healthier lifestyle and prevent the occurrence of heart disease.

Smoking

The use of tobacco has several major drawbacks including chemical addiction, habit formation and potential damage to heart and lungs. There is nothing healthy about smoking, so stop before it's too late.

Alcohol

While there is some evidence that having one or two drinks a day may prevent heart disease the evidence for this is soft. While alcohol does increase HDL cholesterol (good cholesterol) it has a number of bad effects. Alcohol promotes increased appetite, weight gain, increased blood pressure and increased blood sugar. Those are the facts and the choice is yours.

Exercise

Few Canadians are physically fit. Following a heart attack, the chance of dying from another heart attack can be reduced by 25 per cent simply by walking a total of 16 kilometres (10 miles) a week. Regular physical activity will also promote weight loss, improvement of cholesterol, a lower blood sugar level and a better quality of life - including less depression and more energy. Remember, you must commit yourself long-term. Be sure to choose activities that you enjoy.

Obesity

The greater your weight the greater the risk to your health. Research has demonstrated that a person's pattern of excess weight can suggest vulnerability to disease. The so-called male pattern, or apple shape, with extra weight around the waist is most important. Take a tape and measure your waist circumference. If it is over 38 to 40 inches you are at risk. The fat around the waist is the first to go, so simply losing five to 10 pounds will improve your health dramatically.

Atherosclerosis, or blockage of the arteries, is a progressive disease if left untreated. Your physician will help you decide if your blood vessels need to be opened with a balloon dilatation called angioplasty or if bypass surgery is required. These procedures will only improve symptoms temporarily. There are medications that slow the natural course of blocking of arteries, decrease chest pain and prevent future heart attacks.

Hypertension, or high blood pressure, is a condition caused by blocking of the arteries and it will damage your arteries. By keeping your blood pressure in check you will help prevent stroke, fluid on the lungs, kidney

damage and future heart problems. To lower your risk of developing high blood pressure keep your weight down, exercise regularly and watch your salt intake.

The 10 commandments for success

1) Take responsibility for your health. Today your heart controls you. Tomorrow you control your heart.

2) Reduce your total fat intake. Sixty per cent of our fat comes from dairy products and the added oils in our diet.

3) Exercise at least three times a week. Walking 10 miles a week will decrease the chance of dying from a heart attack by 25 per cent.

4) Increase the fiber in your diet. Most Canadians eat less than 15 grams of fiber a day. Aim for 25 grams. Fiber is poorly digested, therefore it fills you up and provides few calories.

5) If you smoke, stop! Every time you light up you lose 5.5 minutes of your life.

6) Decrease your salt intake. The average Canadian consumes two-and-a-half teaspoons of salt daily and a simple reduction of one teaspoon of salt daily will lower your blood pressure significantly.

7) Smell the roses. Take time for your health before it's too late. It's important.

8) Manage your stress. The pressures of daily living age you faster than you think. Individuals who have a pet such as a dog live longer than those who feel isolated and alone.

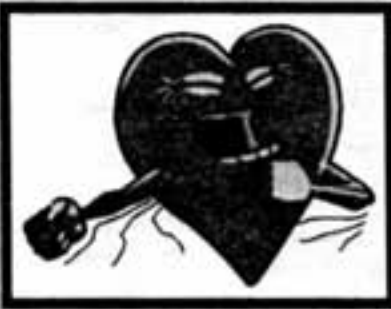
9) Eat five to 10 servings of fruit and vegetables a day. Most of these items are low in fat, rich in fiber and natural antioxidants. They will probably make you live longer and weigh less. Remember to rinse these products well before eating as they have many pesticides and fertilizers that should be washed away.

10) Use medications properly. There are many medications that can treat high blood pressure, lower your cholesterol, control your blood sugar, help you stop smoking or help you lose weight when used appropriately by you and your physician.

A heart attack is a medical emergency that is extremely frightening and changes your life. Fortunately, you can help beat the number one killer in Canada. Today, blood clot 'busters' can be rapidly infused to stop the heart attack by restoring precious blood supply.

Remember, if you think you might be having a heart attack do not put off going to the hospital. If you wait too long it may be too late to take advantage of clot 'busters' and you may suffer more damage to your heart muscle.

Take charge of your heart. What is truly remarkable and often forgotten is the power each one of us has to heal ourselves.



In Memoriam

Name	Date of Birth	Date of Death	Years of Service
Aurele Cusson	03-11-14	10-08-96	20
Ronald Dupuis	12-26-32	10-21-96	31.5
Russell Emple	09-14-14	10-22-96	31.9
David Ferguson	05-16-32	10-08-96	24
Adam Frohlick	07-31-11	10-13-96	38.5
Steve Hnatuk	06-04-21	10-22-96	34.5
John Huculak	07-07-09	10-18-96	30
Maurice Jacques	02-27-35	10-24-96	30.3
Stanley Kotyk	08-09-09	10-08-96	29.2
Jozef Klukiewicz	03-18-15	10-13-96	28
Leonard Kutchaw	02-14-05	10-23-96	36.6
Armand Legault	05-10-30	10-13-96	27.8

Name	Date of Birth	Date of Death	Years of Service
Roland Malette	01-22-13	10-20-96	35
Hubert Marshman	02-01-15	10-27-96	27
Alexander Nickason	06-02-21	10-10-96	25.5
Michael Pally	05-02-19	10-11-96	38
Arcade Paquette	05-14-24	10-31-96	33
Frank Parcey	12-03-15	10-20-96	36.5
Rino Pigozzo	08-26-17	10-20-96	19.2
John Randall	07-29-05	10-12-96	41.5
Arsene Scott	06-08-30	10-15-96	15
Silvio Signoretti	12-17-19	10-31-96	41.5
Metro Swech	09-25-26	10-28-96	38
Ovila Venne	03-03-34	10-22-96	33

I heard it down at . . .

The Dry



by Jerry Rogers

Eva Williams and John Fleet come from two distinctly different worlds in Labrador. Yet, in their separate ways, they're cautiously ready to welcome Inco to this vast land of less than 50,000 people.

Williams is a 34-year-old Inuit radio producer with the OkalaKatiget Society in Nain on the coast of Labrador while the fortyish Fleet is a former CBC newsmen in Happy Valley, Goose Bay and now head of the Labrador North Chamber of Commerce.

While the affable Fleet and his Chamber colleagues are preoccupied with the business potential of the Voisey's Bay nickel development, they are also deeply concerned about the environment and land claims issues.

Williams, whose father is on the Inuit negotiating team in discussions with Inco, is nevertheless optimistic about working with the company while she searches out her own answers about mining and the environment, land claims and economic and job opportunities for her people in the coastal community of 1,200, 35 kilometres from the proposed mine site.

Over two days earlier this month, they shared their ideas and views about Inco after touring our operations in Copper Cliff.

The mother of three, Williams was making her first ever trip to Ontario and her first ever trip to a mining and processing operation. She expected to have her worst fears confirmed . . . mining devastation, air pollution, black soot everywhere.

"I definitely want to come back. I want a tour of an underground mine. I wasn't sure of Inco's role in the community but now I know and I find it's quite involved and touching people," she said. "I want to come back with my family, with somebody I know so that they, too, can see it for themselves."

"I expected to see a lot of ugliness but I didn't. I got to see a lot, the smelter, refinery, the mines, the tailings, what Inco's doing in the environment. It was great. If Inco continues its good environmental work and continues to work closely with the aboriginal community, then Voisey's Bay is not in any danger of destroying the environment."

The last time Fleet had been in Sudbury was 20 years ago and he couldn't drive through fast enough. On his return with nine others from Happy Valley's business community, he brought with him bad impressions from his days in the iron ore community of Labrador City.

"It's my very first time back to Sudbury and, man, it's been a learning experience," he said.

The Labrador delegation had three goals on its first trip to Sudbury: get a real appreciation of what a modern mine, mill and smelter complex is, see our environmental programs in action and meet Sudbury business people. After each leg of the tour, Fleet and his colleagues drawn from Happy Valley's school, government and business community met back at the Four Points Hotel to discuss what they'd learned.

"We really wanted a first-hand look at the environment and how Inco is dealing with it. I can tell you we were more than pleasantly surprised. Take the Smelter operations. We were impressed with the essential technology and the controls. Later, we saw the tailings, the rehabilitation work and the amount of money and research programs into the environment. So it was not as environmentally foreboding here as we thought."

That's not all they'll take back to Labrador.

"The most powerful message we've learned is there's a fierce loyalty to Inco. It didn't matter who we talked to and we talked to everybody - to drillers underground, to Smelter workers, to taxi drivers, even to Severo (Severo Zanatta, our veteran Inco tour ambassador who escorted the delegation) - there's a huge company pride. It's just exudes from people."

Williams went home with a similar feeling.

"Development," she said, before boarding a plane that would take her to Toronto, Halifax, Deer Lake, Happy Valley and finally by Twin Otter to Nain, "is going to be a good thing and Inco's going to be fair in every way. I don't think Inco's going to bulldoze everybody out of the way. They want to work with people."

Underground mining from above

How people have gone about mining has evolved remarkably over time, advancing from primitive wood and antler pickaxes to automated scooptams and diesel-powered drills today. Even with the advances, people still have to go underground every day. Remote control technology may change the daily routine, as many recognize with the significant work undertaken by our Mines Research group in tele-operated equipment at the Stobie Mine. Inco, of course, is a world leader in the field and Ed Steen, Inco's assistant general counsel-patents at Saddle Brook, New Jersey, reminds us the automatic guidance system that makes remotely-controlled equipment possible underground is Inco's patented technology . . . Images of Inco's mining in Sudbury will be included in a new documentary series on the solar system for the American Learning Channel. The six, 52-minute documentaries explore the origin and nature of comets, asteroids and meteorites. Producer Lincia Daniel says our mining footage will

Inco and Sudbury shine in visit by Labradorians

Illustrate the point that a buried asteroid could be the origin of nickel deposits on earth . . . Inco's 'rice bowl' series of advertisements in American publications this fall appear to have caught the eye of potential investors. By the end of October, more than 400 people had called Inco's 1-800 number looking for annual reports and videos . . . The visit of Prince Charles to Sudbury and the Copper Cliff Smelter gets a mention in former Premier Bob Rae's memoirs, *From Protest to Power*.

Whatever happened to . . . ?

Golfers take note. On Nov. 18, Jim Black, late of the Engineering Department, managed to get in one more 18 holes of golf. In fact, it was his 138th round this season, his second in retirement after 34 years of service with the company. Jim, who organizes the Inco annual golf tournament at the Idylwyld Golf and Country Club, has shaved his handicap to 14 from 17 in the days he was working primarily in the Accounting department. Retirement, he says, is "like I died and went to heaven. It's perfect. To be perfectly frank, I don't have enough money but I didn't have enough money when I was working either." Still, he gets away for a Florida break and returns home to do some business on tax returns . . . Looking back on his first year in retirement in 1992, Milton O'Bumsawin laughs at his mindset and why, after 40.5 years of working for Inco, leaving as a construction leader at Levack Mine, he just hung around the house. "That first year I had this idea I didn't have to go to work. I was really lazy." But not anymore. Since then, he's bought a new house, a new trailer, made a shop for himself, hunts and fishes. "I enjoyed my time there," he says. "But I don't see enough of the old-timers, the guys I worked with. I'd like to see them around town." . . . With her granddaughter becoming the light of her life now, Laura Diniro is getting fully into the life of a retiree two years after leaving a 30-year career, latterly as a claims administrator with Safety, Health and Environment. Now recovered from an illness, she has this advice for future pensioners. "You have to keep occupied. I'm enjoying it. I occupy my time. I go downtown, visit, do the chores I neglected. I miss the people, I miss the friendships I made over the years," she says. "Tell everybody, Laura says hi and she's alive and kicking." . . . For the first year or so after retiring in 1994 after 29 years in the Division, Leonard Caplette woke up early, thinking about work on the stripping machine at the Copper Refinery. Now, though he finds retirement "a little boring in winter," he's settled in, visits his son who's in the Canadian Navy out west, and awaits his wife's retirement. "Sometimes, I'd like to be working still. You sort of miss the whole outfit," he says . . . Philip Dalle Vedove was ready for retirement when he had the chance to go in 1991 after winding up 39.6 years of service as a mechanical leader in the old Orford Building. "I adapted very fast to retirement. I was ready for it after so many years and everything worked out perfect for me (with the early retirement incentive). Daily walking keeps him healthy and doting on his grandchildren keeps him busy. "I keep quite active. When I worked all those years, mostly in the Smelter, I worked all over. I was never bored, always on the move and I guess I haven't stopped." . . . In his first two years as a pensioner after also retiring in 1991, Juergen Kuik took up woodworking at school and then spent the next two years catching up on all the work at his home and cottage on Lake Nipissing at Sturgeon Falls. Until just recently, he and his wife were daily walkers but a problem with his leg which he hopes to resolve through swimming has slowed him down a bit. His advice to those contemplating retirement is simple: look after your health, be prepared financially and have hobbies or interests to pursue.



Manager
Jerr

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