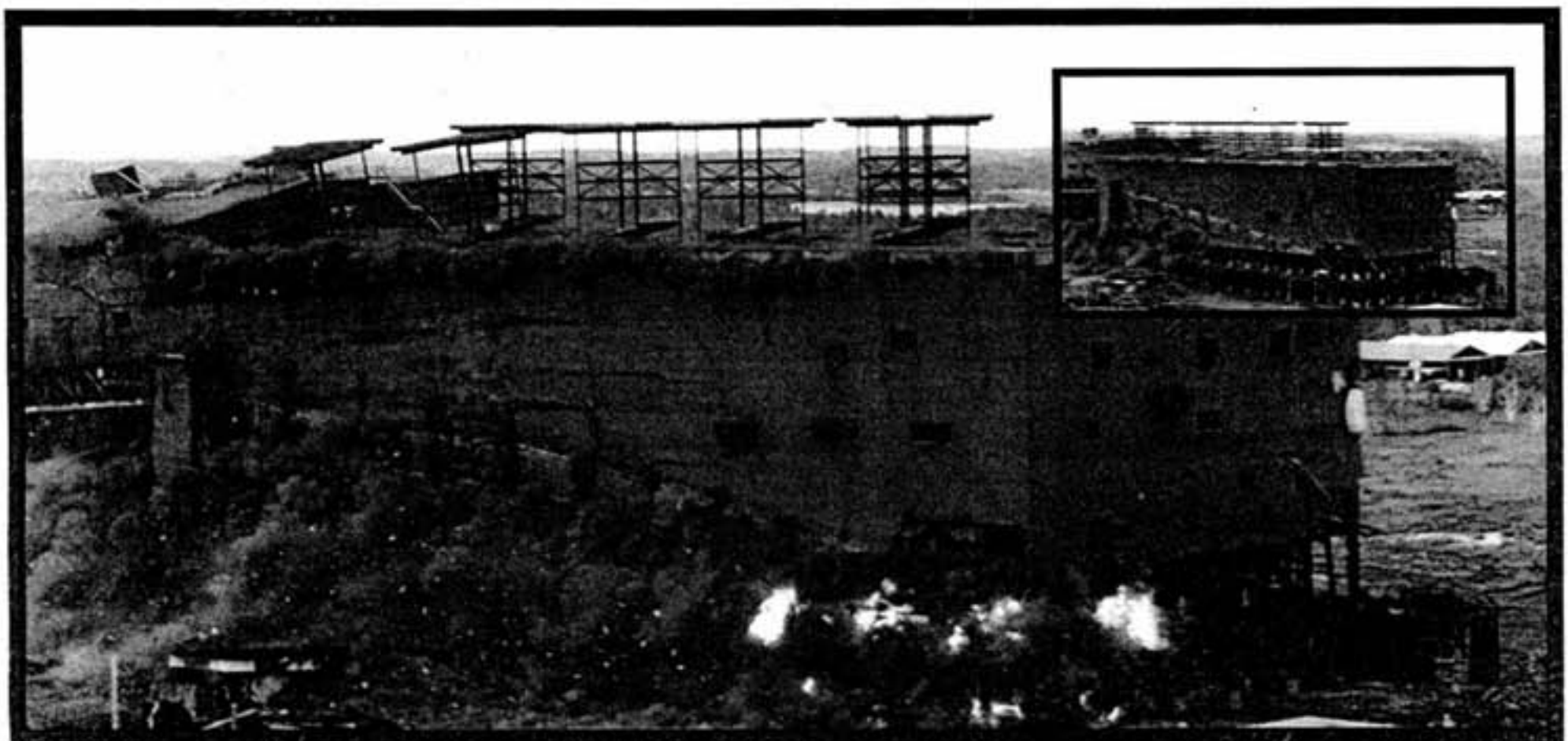
Is Port Colborne maintenance man Eldred Smith counting his toes or learning to tie his laces? See story, pictures page 12.

INCO

Triangle

Printed on Recycled Paper

August 1993 Ontario Division Vol. 52, No.7



NOW THAT'S RENOVATING!
A landmark in Inco history disappeared in a puff of smoke when the long-dormant pellet building at the Copper Cliff Nickel Refinery Complex was demolished. Closed in 1980 after 23 years of service, the demolition was part of Inco's "progressive decommissioning" which is designed to restore inactive sites to their original state. See Pages 8 & 9 for more pictures and stories.

Two-year savings over $1M

Teamwork zaps $900,000 off Inco's shutdown Hydro electricity bill

Talk to just about every one around Inco these days on energy conservation and you get the distinct impression they're trying to run this place on a pair of penlight batteries.

Look at the results so far and you start to believe they'll make it.

Inco's power costs during this year's shutdown were $900,000 less than in 1992, a statistic even more amazing considering the fact that about $300,000 was saved in 1992 over the year before.

John LeMay, assistant manager of Central Maintenance and Utilities, credits the "tremendous cooperation of everybody at the Division's mines, plants and offices.

"All plants have done many things to reduce consumption and no particular measure can be singled out," said John. "It's a cumulative effect.

"People realize energy costs are critical to the Division and if everyone does a little bit it adds up to big savings. Considering the spirit with which employees have approached conservation, I think we'll see more savings next year.

"There's no question that we had everybody on board on this thing. You don't get results like this unless we work together."

This year, careful planning, intricate timing and careful calculations as well as teamwork made the most of Hydro's monthly peak load charges. Since the shutdown meant there would be only one day of full operation (July 2) during the month (to serve as Hydro's yardstick for the peak period tabulation) every effort was made to lower energy use.

"We had a meeting of the Peak Power Control Total Quality Improvement team," said Clarabelle Mill superintendent Dietrich Liechti. "It was explained to everybody at the plants and mines that every megawatt used costs us about $12,000 and how vital it was that we lower consumption as much as possible."

Acting like Inco's own DEW (Distant Energy Warning) line, the Power Department monitored energy use and called up the mills and mines during peak periods. Machinery, equipment and systems were shut down.

"It's not easy for these people. There's pressure on production as well as energy conservation. The mines and mills had to strike a balance between the two and that takes some fine-tuning. The results show how effective all the effort was."

Power Department operations supervisor Sean Brady said while it was his department that coordinated and provided the information, it was outstanding teamwork that pulled off the hefty savings.

"We got an enthusiastic

continued on page 2

Inco men involved in house fire rescue

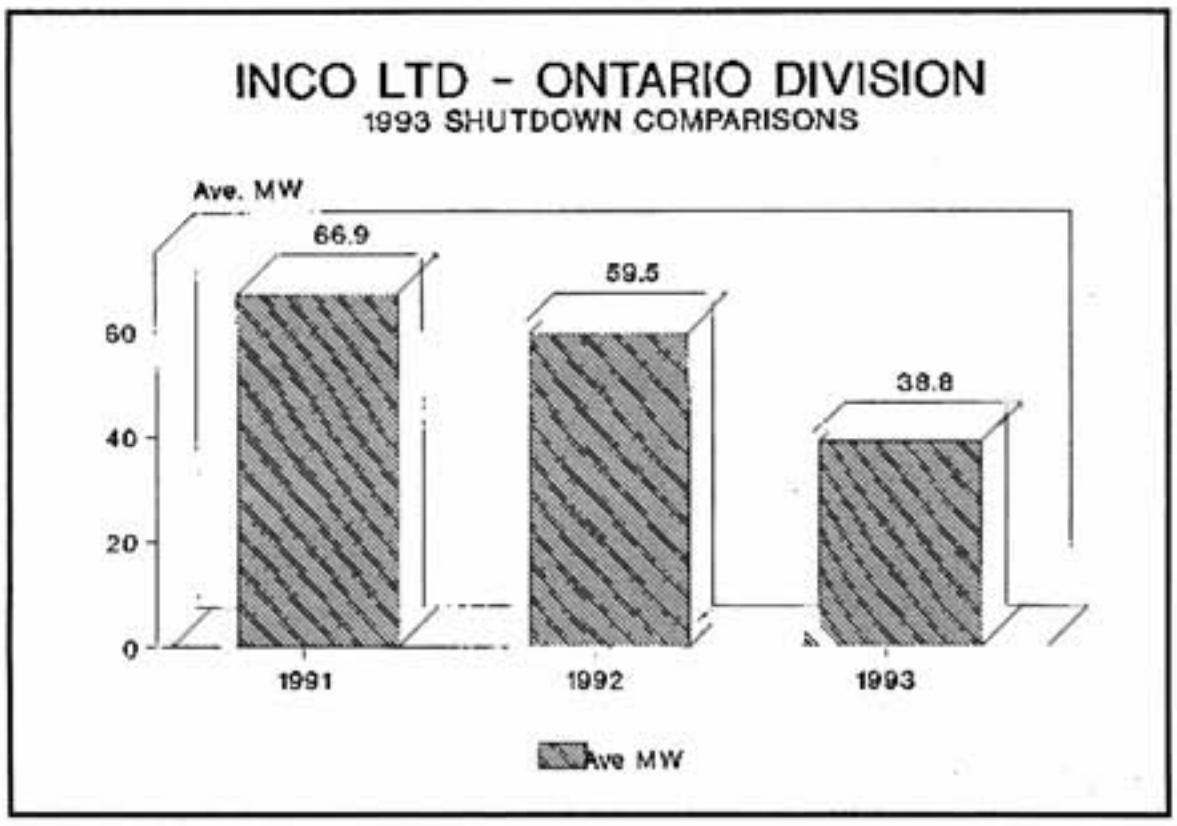
Quick action by two Inco employees may have prevented a tragedy from becoming worse in a July 28 house fire that resulted in the death of a young Sudbury boy. After noticing a cloud of smoke billowing from a Kathleen Street apartment building around 7 a.m. on Wednesday, July 28, Rolly Lauzon and Cleo Methe, both Reconditioning Shop employees, were the first to arrive at the scene of the fire. "The first thing we did was park Inco truck number 528 in the road with its four-way-flashers on to attract attention to the situation," Rolly said.

Their next priority was to alert the fire department. They managed to call 911 for help. However, a response to the call would take some time.

They decided to help rescue residents from the burn-

continued on page 2

Overwhelming response for energy conservation effort



continued from page 1

response from everybody we talked to, and from the results, it looks like everybody did their best."

He said the savings realized during the shutdown are a testament to how well conservation efforts are working. The credit, he said, goes squarely on teamwork and cooperation.

The project is an ideal example of how the joint approach to energy conservation adopted by Inco is vital to the program's success.

"That, coupled with excellent communications, did the trick," said John.

"From supervisors to line personnel and Ontario Hydro to power plant operators, good communications was the key to success. Improving those communications will always be a priority as we continue our conservation efforts at Inco."

Creighton maintenance supervisor Ray Cousineau said the success is indicative of the long-awaited change in culture.

"We had the entire system in place from the winter shutdown last year, so we had every confidence that we could do it again," he said. "We kind of pioneered this thing (during the Christmas shutdown) by surveying all our power needs and tagging it, and assigning individuals to ensure the equipment is shut off quickly.

"I think it boils down to a matter of education. The culture is starting to change."

Have we squeezed every kilowatt out of the system?

"No," said John LeMay. "There's more savings to be had and I've every confidence that our people will find them."

Employees kept tragedy from becoming worse

continued from page 1

-ing building and rushed onto the main floor, knocking on doors and trying to wake people and get them to evacuate the premises.

Three people were calling for help from two second storey windows on one side of the building. However, attempts to reach the two adults and a seven-year-old boy were halted by fire spewing from a main floor window just below them.

Acting on instinct, the two men scavenged an old door left over from renovations being done to the building. They used the door to cover the main floor window to impede the flames. A rescue could now be attempted. Cleo and Rolly instructed the trio to hang from the window ledge and drop to safety with Cleo catching the young boy.

The rescue was successful but the seven-year-old told them another child could still be trapped on the second floor. "We tried to keep looking," said Cleo. But when he ran up to the second floor to see if anyone else was trapped, he was confronted by a wall of fire and smoke and had to flee. "The seven-year-old that helped us was pretty tough. He played a big part in the rescue by screaming to others to gather in the two windows," Rolly said.

After the fire department was at the scene, Cleo and Rolly helped the firemen with hoses and briefed them on the situation. The fire was put out shortly after the firemen arrived. The ordeal was over for the two men.

"Things were going very fast at the time," Cleo recalled. "We had no sense of how much time had passed, but in this type of situation you have to keep a level head."

After Rolly and Cleo returned to the shop, what had happened began to sink in. Both agreed that the tragedy affected them for a long time and believed that it would continue to affect them for some time yet. They sometimes try to recall all that happened and try to play it back in their minds.

"You have to do what you have to do," said Cleo. "When you think about it, a simple ladder or any other means of fire escape might save lives in such instances."


Cleo Methe and Rolly Lauzon

"I feel we have to commend Inco for our first aid and safety training. I think it helped us out tremendously in this situation," Rolly said.

The two felt firemen at the scene should be commended, noting that the job is a difficult one and requires a special kind of person who can deal with these situations regularly.

In retrospect, "we feel we did the right thing to help these people," Rolly said.

Both men urged others not to be bystanders and to get involved.

Inco offspring earns Inco scholarship


Inco pensioner George Betancourt with Inco scholarship winner Stephanie Thompson.

Brian Thompson has some good news to share with his co-workers at Mines Technical Services. His daughter, Stephanie, recently won a $1,000 Inco Scholarship at the Kiwanis Music and Dance Festival.

"I'm very proud of her," said Thompson, who watched his daughter accept the award at a special ceremony during the 48th annual festival.

The young dancer has been dancing for more than 12 years now and Thompson has watched his daughter blossom over the years. "She started when she was seven and since then I have seen a lot of improvement in her dancing."

The Grade 13 Lo-Ellen Park Secondary School student spends her time after school and weekends dancing at the Sudbury School of Dance. She spent many hours rehearsing her five dances that she performed at the Kiwanis festival.

Thompson said his daughter plans to spend her scholarship on more dance lessons. She is hoping to attend Toronto dance theatre this summer. In past years she has taken lessons in New York and at the National Ballet of Canada summer program in Toronto.

Inco's sponsorship of young talented musicians and dancers means a lot, especially to Thompson. "I think it is great that Inco supports the arts," he said.

George Betancourt, a retired head cashier in Inco's accounting department, made the presentation on Inco's behalf during the awards ceremony. "It was my pleasure to present the $1,000 award to her," he said. "I worked at Inco for over 33 years and it seemed that I was the right man for the job to make the presentation."

MAKING Change

Annual savings of over 1.5M expected

Stobie silences sound of leaking money

"P...s...s...s ..s...s ...s...s ...s...s...s...s...s...s ...s...s...s...s...s...s...S...S...S...T..."

The hissing came from somewhere in the surrounding blackness of Stobie Mine. Fern Albrechtas froze dead in his tracks as he listened, the light from his headlamp jabbing around him in an attempt to penetrate the underground world and find the source of the sound.

He'd heard it before. It was the search of the elusive hiss that brought Fern out of retirement, hiking every underground inch of Frood, Stobie and Little Stobie drifts on every level for eight hours a day, five days a week for seven weeks.

What was it he was looking for?

The sound of leaking money. Over $1.5 million a year.

"We knew it was a problem, but not how widespread," said Fern, who almost wore the tread off his boots doing an air systems survey of the miles of underground pipe that carries pressurized air to operate the mine's air equipment.

The examination of the compressed air system resulted from an aggressive approach to the effective use of the principles of quality improvement. With strong support from the management team, employees tackled the problem and came up with answers.

Last year, Little Stobie shut down one of their two compressors after an analysis showed that they were able to supply their needs, plus the incremental needs of Stobie with only one 10,000 cubic feet per minute compressor. By shutting one down and using the remaining compressor more effectively, Little Stobie's annual energy bill was expected to drop by at least $100,000.

A new 10-inch line was installed on 600 level to allow the effective transfer of air between the mines. The new line replaces an inefficient old line at 2,400 level.

"The old line connecting the two mines lacked enough capacity. It created too much pressure draw on the supply," said then utilities engineer Maurice Taylor. (Maurice retired earlier this year.)

The next step was a detailed examination of the entire compressed air system at all three mines. Fern, the complex general foreman who retired early in 1992 after 30 years of service at Frood-Stobie, was asked to review the system.

"That meant following every line as far as it went on foot, listening for leaks and checking valves. In 30 years here, I guess I've probably seen most areas of the mine, but never this methodically and completely. This time I've covered every inch of it."

He wasn't surprised to find a lot of leaks. "It's part of the normal wear on the system," he said. "You can catch these things if they happen in a work area, where there are people, but there is a lot of pipe in places where nobody goes anymore."

Shaft foreman Herb Steen figured lots of leaks would be found. His crew checks the more than 4,000 feet of main feeder compressed air lines in the shaft once a month and schedules any needed repairs. "In my area I know the extent of the problem. If we have to do repairs in the main feeder lines in the shaft, we have to close the entire system down. That's why we do a manual check of the feeder lines once a month. But it would be impossible to check the miles of branch lines on a regular basis."

Fern's survey identified scores of leaks, inefficient installations and areas where existing lines weren't need and should be capped.

Crews were assigned and given the task of going through the mine repairing and capping inefficient pipes and hoses.

By tightening up the air system, it was possible to prove that the three compressors installed at Stobie were not only adequate for Frood and Stobie mines, but were also adequate to supply Little Stobie's needs.

The result?

Shut down Little Stobie's compressor plant completely, realizing an additional annual saving of $504,000.

In addition, precise scheduling, enhanced by the tightened, more reliable system, allowed the two Rand compressors at Stobie to be shut down on weekends and between 9:30 p.m. and 6 a.m. from Monday though Friday.

The result?

Another estimated annual energy savings of $180,336.

To ensure the savings will continue, the mine has launched a major awareness drive.

"People used to think that air and water was free, that there was an unlimited supply and it was there for the taking," said Maurice. "We are actively making our people aware that all this costs money. We are making our people responsible and accountable for the loss control of compressed air. We are cutting down on waste."

Shaft foreman Herb Steen and compressor operator Roy Chapados at the 18-inch pipe that supplies air to the mine.

To allow closer monitoring, five meters have been installed that divide up the air system into manageable sections. "This will tell us how much the 'customer' is using compared to what he should be using. If there is a sudden increase in usage in any of the areas, we can pinpoint it right away, without having to examine the entire system."

Because of the potential cost savings involved, Ontario Hydro has paid for the meters under Hydro's energy conservation initiative program.

But the savings for the complex will go well beyond the cost of energy. "With the system working efficiently and with our ability to zero in on where the problem is," Maurice said, "maintenance costs should be greatly reduced."

MAKING Change

Mines Research: Without a prod

Greg Balden described how the Road Router will work during a press conference announcing the machine's Inco/government development funding. To his left are Vice-President of Mining John Kelly and Northern Development and Mines Minister Shelley Martel.

Inco planning hardest road surface in the world... underground

The condition of surface roads, highways and streets has a direct effect on efficient transportation. It's no different underground at Inco mines where advances in automated "trackless" mining (haulage of ore by rubber-tired vehicles rather than rail tramways) have made roadbed maintenance on underground haulage drifts and ramps a critical factor.

The amount of ore transported is dependent on the speed and load capacity of underground haulage vehicles, and the increased ore capacity of modern haulage equipment demands well-maintained roadbeds.

Inco miners have tried concreted roads as a way to reduce maintenance of roadbeds and equipment, but the expense of the procedure has proven prohibitive.

Inco's Mines Research is well on the way to developing a unique piece of machinery that utilizes the underground rock to produce a smooth roadbed.

Called a "Road Router," the roadbed dressing machine takes advantage of the existing rock by literally "routing" the rock floor to a relatively smooth surface as it moves along the drifts and ramps.

Vice-President of Mining John Kelly said Inco miners operate in some of the hardest rock in the world, yet find themselves applying less durable concrete at enormous cost on the existing rock's surface in order to get a smooth road surface.

He told a recent press conference held to announce a Northern Ontario Development Agreement grant of $237,000 toward the project that the equipment, if successful, would also improve the miners' environment. "It's hard to get adequate shock absorbers that can handle the heavy machinery," he said. "Drivers can get pretty sore after being bumped around navigating their equipment on the rough underground road surfaces. The Road Router should eliminate some of that."

He pointed out that the machine would be of interest to other mining companies and subsequent sales could provide manufacturing jobs in Sudbury.

Commercial production is at least two years away, he said.

Once commissioned, the production models will be fabricated and distributed by Continuous Mining Systems of Walden.

The machine will use a hydraulic rock drill mounted on a boom to repetitively drill overlapping holes to a predetermined depth, producing an extended flat surface as it moves along the roadway much like a plunge router. The boom moves through an arc, leveling half the width of the roadway at each step.

For the bulk of the work on straights and curves of constant grades, the machine would cycle automatically with steering and cutting depth controlled by a laser guidance system. Manual control would be used to make the first flat section at the beginning of the drift.

Expected cost savings using the "Road Router" are significant. The planned application of concrete to a ramp installation at Copper Cliff South Mine is projected to cost just under $1 million per 1,000 feet. The costs of the same project using the roadbed dressing machine is estimated at about $64,600 per 1,000 feet.

To help reduce dust in the underground environment a dust collection system has been integrated into the design of the machine. The system collects small cuttings and the machine is also equipped with a plough to deflect large debris away from the crawler tracks for later clean-up.

The project was begun in August of 1992, and the engineering was completed on schedule last month.

Fabrication of the machine is underway at Inco's Prototype Shop at Copper Cliff North Mine. The major elements are in place and scheduled August shop and surface testing should be on target. Mine testing would begin this December.

The Road Router is just one of a wide range of projects in the works at Inco's Mines Research in Sudbury. Others include improved mining processes, better backfill and blasting techniques, automated haulage equipment, robotic manipulators and 'smart systems' for troubleshooting.

Inco researched the machinery at a very low cost. The company paid half the development costs while the province and federal government shared the remaining portion.

MAKING Change

lem to solve, there's no progress

One innovation leads to another.

That's been the experience of Inco researchers in their efforts to create new ways to do things and new equipment to do it with.

The research process usually goes in an endless cycle from problem to solution to problem, the continuing results changing the face of mining to a safer, cleaner, more efficient and productive environment.

The newest Mines Research project is the perfect example.

No sooner had Mines Research begun working on a unique 70-ton fully-automated haulage truck that is today operating successfully at Little Stobie, than they realized that a smooth road surface was required to make the vehicle work effectively on its remote controlled rounds.

Pouring concrete to pave the truck's route proved relatively effective, but enormously expensive. Expenditures of approximately $1 million per 1,000 feet led Greg Baiden to approach the problem from a unique perspective.

Existing roadbeds are levelled with slag material, but the heavy underground vehicles and equipment traversing the drifts create ruts that must be graded constantly.

Inco researchers looked at highway construction and even aircraft runways for ideas. It became clear by talking to highway and runway engineers that the surface material wasn't nearly as critical as the base.

Recognizing that the rock offered a more durable surface than the concrete applied on top of it, Greg figured there had to be a better way.

"I figured there must be a way to use the rock itself, to smooth it out enough without having to pour concrete." said the superintendent of Automation and Robotics.

Concrete has a compressive strength of about 5,000 pounds per square inch. Sudbury's hardrock strength is between 40,000 and 50,000 psi.

Greg and concept development specialist Don Young "kicked around" several ideas until they hit on the concept of "routing" the roadbed right into the rock.

To test the idea, an in-the-hole drill was used to drill a section of the roadbed. A series of 12 inch diameter overlapping holes were drilled 12 to 16 inches deep, the resulting surface proving acceptably smooth at each bit face with little or no evidence of cracks below the drilling depth.

"It worked," said Don. "Then it became a matter of designing a basic machine for the least amount of cost to move to the next stage, the viability of the project."

The design was tailored around a set of tracks scavenged from a previous project and an unused drill from Crean Hill Mine. "Automation will come later, once we've proved the concept," said Don Young. "For now, the first prototype will be operated manually. Eventually, with the robotics in place, the machine will be left to operated automatically for extended periods of time."

As the project's industrial evaluator, it was up to Don Desjardin to take ideas and rough sketches and translate them into something workable. "Going from a concept to manufacturing drawings is a very challenging process," he said. "Sometimes you can't tell if an idea is going to work until you sit down and draw it. The challenge is to rethink and adjust the idea to make it work."

What's helped bring the project along quickly, he said, is the cooperation of everyone from management to the people on the shop floor.

What's worked particularly well, he said, is abandoning the "top down" approach where management orders something done and the fabricator builds it.

"We're doing it differently. We put an idea on paper and then discuss it with everybody involved. The guys in the shop have their input and they've come up with some good ideas."

Don Young said the same team concept was adopted in the machine's fabrication as well. "We are working closely with Dieter Wehner and his crew at Divisional Shops who are fabricating these parts.

It's important to get their input, to have them understand what we are trying to do. Our designers talk with their machinists. It's worked out well."

The advantage of developing more durable road surfaces is more than enabling the operation of automated equipment. Examining the effects of smoother road surfaces on productivity, equipment down-time and maintenance, it was calculated that even the expensive concrete surface would pay for itself within only a few years. Operating costs of scoop-trams on smoother road surfaces, it was calculated, would be cut by 50 per cent.

Replacing concrete with the rock itself would multiply these potential savings.

"Our biggest problem is getting development time down," said Greg. "The truck took us eight years. We'd like to cut that in half. This project is a lot simpler than the automated truck, of course, but we'd like to minimize the inevitable snags that always develop with this kind of innovation."

Don Young said that the salvaged parts and a decision to keep it simple has helped keep development time . . . and expense . . . to a minimum.

"Later, when the concept is proven, we'll go into the automation," he said.

But he credits the team approach, at Mines Research as well as between different Inco departments, as a major reason the development of the Road Router has gone so well.

"I think the team approach has helped a great deal, particularly in avoiding the snags be-fore they became a major problem."

Equipment assembler Ed Reynolds works on the Road Router's boom.

Industrial evaluator Don Desjardins translates ideas into working diagrams.

Don Young and equipment assembler Ed Reynolds look over drawings of the Road Router.

MAKING Change

25¢ bucket caused thousands in downtime, damage

Penny pails no longer costly calamity

What weighs a few ounces, costs pennies, is discarded after it's emptied and then costs Inco many thousands of dollars every year to purge from Inco's operations?

Pails. Cheap, disposable, white plastic pails.

"Every year, the Division uses about 65,000 pails that come filled with different kinds of oil for Inco's equipment, machinery and other uses," said Safety, Health and Environment senior environmental analyst Don Richer. "They're used by both surface plants and in the mines."

A major environmental problem is that the 20-litre pails take up a lot of space at landfill sites. A problem for Inco is that the buckets get into the ore at the mines and travel with the ore until choking the muck flow at Clarabelle Mill, creating nuisance maintenance work at best and operation slowdowns or stoppages at worst.

With the cooperation of Inco employees and the buckets' supplier, a solution has been reached that eliminates the environmental problem, reduces incidents of pails jamming up Inco equipment and at the same time raises cash for charity.

Through an arrangement worked out with Inco's Safety, Health and Environment department, Esso, the supplier whose products come in the buckets, is offering to buy back the buckets for recycling purposes. A donation of the 25 cent refund for each bucket will be made to the charity chosen by the individual plant or mine.

Inco mines and plants are in the process now of setting up a collection procedure and when in place, each will return their buckets and be credited with a charity refund.

"Initially, it was the landfill problem that we were trying to solve," said Don. "But examinations by the Ore Flow Teams found that the buckets were also contributing to the scrap in the ore problem. The flattened buckets would plug up chutes and choke off the ore flow at Clarabelle Mill."

The recycling scheme fits in perfectly with a division-wide effort to eliminate a scrap in the muck problem costing the company millions of dollars a year.

While the plastic pails do not often cause the kind of severe stoppages and damage of other foreign materials such as steel beams, Clarabelle Mill operations superintendent Dietrich Liechti said the flattened pails in the muck contribute to an overall problem that creates major headaches at the Mill.

The pails move through about a third of the process here, when the muck has been crushed to 3/4 inch size. At that point they become flattened out and become lodged in chutes, causing a blockage of muck flow.

When the blockage occurs in the chute below the crusher, it has to be shut down and the blockage has to be cleared manually with a long hook.

"It's a dirty job, and the person who's doing it knows that it can easily be avoided. That makes it even more unpleasant," said Dietrich.

Conveyorman Gord Barry shows a flattened bucket that he picked off the conveyor. Once in the plant, the buckets can cause stoppages.

Grinding operator John Kollar uses a hook to remove a flattened pail from one of the chutes above a crusher.

MAKING Change

Plate Shop idea just in time

To do quality work, you need quality material.

The Plate Shops set up a team to eliminate the rusty mild steel plates that they were used to seeing. The idea of Just In Time delivery was developed by the team. This system would not only eliminate the rust problem but also reduce inventory carrying costs which was pointed out by using the cause and effect diagram.

The team, which consists of scheduler Terry Gosselin, planners Rick Blais and Bernie Piche, plateworker Don Bisallon and programmer Rick Preseau, knew in order to eliminate rust to make better cuts and save money on storage of plate, the vendor would have to be involved from the beginning. With the help of Ted Joiner and Ron Poirier, arrangements were made with the vendor.

The shop is in the process of reducing the current stock. The purchasing department has set up a standing purchase order, which will allow the shop to order plate as needed. Material will now be stored at the vendor. The order for a plate will be placed over the phone, and the plate will arrive at the shop the next day before 7:30 am. General foreman Klaus Truderung commends the team for all its hard work and commitment towards quality. The team will closely monitor the progress and keep in contact with the vendor to work out any unforeseen problems.

That's progress...

The Inco CIT Radio Communications Team has all of the ingredients to be a great success. First, they have a simple mission statement: "To ensure the radio communication systems are adequate for current and future needs." Second, they are a group of highly skilled and knowledgeable people including Gerry Gallagher from General Engineering, Steve Gorecki of Information Systems, Pat Maloney from Smelter Maintenance, Transportation's Mike Mayer, IETS-Field Exploration rep Doug Stickles, Bill Wickenden from Central Utilities, Mary Sitko of Information Systems and Ron Smith from Purchasing. Third, the area for improvement has vast potential.

The team found that the present system was lacking standards. The Department of Radio Communications advised the company to better utilize the 78 frequencies. The team is also looking at minimizing interference between radio systems, meeting the Divisional radio needs, utilizing radio resources cost effectively, compiling an inventory of radio hardware and organizing an information resource group. The group will act as an information resource to assist the Division in meeting our future communication requirements. That's the team spirit . . .

Closing the loop . . . the C.I.T. group is now without the services of Mike Lapierre who has gone to North Mine to carry on his fine work. From all at CIT, thanks again Mike! . . . Joining the ranks of the CIT is Gerry Piche. He is currently working on the Ore Flow Team. Welcome to the team Gerry! . . .

MAKING Change

Clarabelle Mill laborer Ray Leblanc shows what a piece of tramp steel in the muck can do to a conveyor belt.

Don Tessier is presented with a framed poster for a campaign to reduce the amount of scrap in the muck from Clarabelle operations superintendant Dietrich Liechti.

Don Tessier takes teamwork crusade below

No teamwork between mines, surface? That's a lot of scrap!

When Don Tessier needs to get something done, he goes straight to . . . the bottom.

That's "bottom," as in "underground."

"If you want to solve a problem, there's no better way than to go see those who have the answers," said the Clarabelle Mill crushing plant leader. "And it doesn't hurt to have a big mouth," he added with a wink.

Just under 100 times, Don took his self-proclaimed "big mouth", a lot of conviction and enthusiasm and his message to just about every miner and every Inco mine. He asked them if they would help eliminate scrap in the muck, a problem that was making his job miserable.

Results?

"I've seen days when I'd get 19 chokes a shift. We averaged about 40 a month," said Don. "Today, we get about four a month. Frankly, I was surprised that the miners cared about my problems. For all the miners who'll be reading your article, pass on a great big thank you."

Indications are that operation slow-downs at the Mill due to scrap in the muck are about a fifth of what they were just a few months ago.

"I've seen lots of improvement," said Don. "I have to admit that when you see these kinds of results and you know you had something to do with that, it makes you feel good."

Clarabelle operations superintendent Dietrich Liechti agrees. "I see a dramatic reduction in the amount of steel and other scrap materials from just a few months ago. I think that's directly attributable to not only the hard work of the Ore Flow teams and Don Tessier's appeals, but to the response from the miners. Scrap in the muck is costing us millions here," he said. "When a piece of steel cuts one of the two (conveyer) belts there's a minimum of 16 hours downtime and half the production here comes to a halt. At one time we figured that we were spending several million dollars per year on the scrap problem, including lost production, damaged equipment, labor and other costs. By getting the foreign material out, we can not only save a lot of money, but also eliminate one of the dirtiest jobs left around here."

Dietrich, who viewed an uncut and uncensored video of one of Don's presentations to the miners, calls the crushing plant operator "a natural" when it comes to communications. "He speaks their language and they listen."

But Don feels that his own role was insignificant compared to that of the miners. "The response was overwhelming," he said. "When the miners realized what kind of problem scrap in the muck was creating for him and the Mill's operation, they were eager to help. It's management's role to give orders, but I don't think the guys listen like they do when it's one of the guys who's doing the talking.

"I found that a lot of people don't really know what happens after the muck gets to them and after it leaves their work site. A lot of our problems can be improved simply through better communications. People on the surface don't know what the guys underground do and miners aren't aware of our problems. My impression after having talked to these guys is that cooperation and teamwork is beginning to spread outside of our own areas. To be really effective, there has to be teamwork between departments."

It's Don's job at the Mill to remove material such as steel, cable, wood, plastic pails and other foreign material from the muck as it enters the Mill, before it causes problems as it moves through the grinding process.

Because of his first-hand knowledge of the problem, Don was asked to attend an early Ore Flow Team presentation to answer questions from the miners.

It quickly became evident that Don's rapport with the miners was excellent and at subsequent meetings he was asked to do the talking for the team.

"It was one employee talking to another," said Don. "When I told them that removing scrap from the muck at my end was dirty, sweaty, hard and unnecessary work, they told me I talked from the heart."

Don's approach was simple, straightforward and . . . graphic.

"I talk their language. I put it in terms they could identify with," he said. "That means a few four-letter words." (He figures a training film of the talk would have to be X-rated.)

Don talked at 94 different sessions, visiting groups of miners at various above and below ground sites.

He denies being "a natural" when it comes to public speaking. "I get nervous at first, but after I get rolling, I do fine."

He was told after one meeting that he should go into politics. "The miners told me that it was the first time they've ever had a safety talk that ended in applause and a standing ovation."

The initial explosion (note flashes on lower left of structure) sets off a timed series of charges encased in wood boxes attached to girders along th from left to right across the bottom of the structure.

From tree stumps to Inco's pellet b ui

For a man who knocked down in 4.3 seconds what it took an army of builders a year to erect, Eric Kelly was in an especially conservationist mood.

With the charred steel wreckage of the Copper Cliff Nickel Refinery's pellet building behind him, the man known as "the demolition man" mused aloud about the amount of scrap from Sudbury's first demolition by explosives in recent memory.

Enough material to pay the New Jersey explosives expert his customary $65,000 fee and to turn a tidy profit for Greenspoon Brothers, the Brampton folks who brought him here to dispose of the building in the most economical, safest and, incidentally, most spectacular manner of blowing it up. Or, rather, blowing it in a fashion that the brick walls collapse in on themselves.

"With our society the way it is today and with recycling this scrap which is a commodity just like gold, silver or your nickel, this makes sense," the 33-year-old offered by way of explanation. "This is not a renewable resource so from an environmental viewpoint, all you have to do is recycle the steel and you don't have to take it out of the earth."

Say again!

The environmental observations are not what you would normally expect from a self-acknowledged "messmaker" whose Pennsylvania explosives firm is one of just four in North America involved in the controlled demolition of buildings and structures by implosion. With his Hollywood style of rangy independence, he seems cut out for the spectacular, risky and dangerous world of explosives.

But Kelly, whose work on the pellet building is part of Inco's major strategy to return unused plants and mine sites to their more natural state, is a world leader in this innovative demolition technique. And while he got his start blowing up tree stumps in his native Pennsylvania as an 11-year-old, he brought a solid engineering background and more than a decade of field experience to the Inco project.

The key to the crucial 4.3 seconds of actual blasting lay in comprehensive planning. First, to decide what columns were to be removed by explosives. Next, in what sequence they were to go and how the 441 charges bearing 875 pounds of sophisticated explosives were to be placed.

Greenspoon's foreman Amadio Dalocci has known nothing but the wrecking business since joining the firm as a teenager from Rome in 1951. He's still learning about the business today.

"When you take a building down, you learn a lot of things. Sometimes you don't know which way the building will go. You have to cut the steel, prepare the building, weaken it. Every day you have something to learn."

In the days leading up to the blast on the first Sunday of the annual Inco shutdown, Amadio was relaxed.

"This is a good job. Very easy," he said, as workers methodically stripped the building of old equipment and began cutting beams and girders to make the building collapse easier and more predictably. "When you've got no room and everything's by hand, it's no fun. But we've got room here. And we've got Eric. He's one of the best."

Uncomplicated though it may have been, the pellet building demolition demanded precise planning involving a host of Inco and outside people. There was not only the sensitivity of near Nickel Refinery buildings to be considered but also several Fielding Road private companies fell within Kelly's 1,000-foot safety zone.

Working behind the scenes with the demolition experts to ensure the smooth, safe demolition were, among others, Frank Javor, Rick Sitko, Shirley Brown, Gerry St. Amant, Clive Lewis and Stu Gendron of the Refinery itself, Berno Wenzl and Judy Gilbert of Inco's emergency preparedness team, Paul Yearwood, Inco's newly-appointed reclamation head, Inco's security chief Paul Legault, and Rolly Wing, the company's insurance expert.

Even weeks before the event, a lot of excitement swirled around the blast. Much of it centred on the pellet building's rich history at Inco . . . at its peak in 1977, three years before suspending production, the Iron Ore Recovery Plant produced 638,000 tons of iron ore pellets. Some of it centred on the use of explosives.

Since traffic tie-ups were likely if motorists stopped along Regional Road 17 to watch the blast, Sudbury Regional Police chose to block off the highway during the demolition. And the time of the blast was deliberately set for 9 a.m. on a Sunday morning when traffic would be light.

Kelly, who toppled the largest steel building in the world in 1988, the 1,800-foot long by 500-foot wide, 18-storey Bethlehem Steel plant in Buffalo, brought street smarts even to these areas.

"The sensationalism of blowing a building is what intrigues everybody," he explains. "Most blasting has something negative about it. Vibration, damage, flyrock and the like. People have seen too many John Wayne movies. For the most part, in professional hands, applied properly, a good blast is the safest and best way to take a building down."

Kelly, who dropped out of the University of Pennsylvania after his second year of structural engineering when his father died, has even toppled one mammoth structure eight feet from a $2 million water treatment plant.

"I remember my dad started out tearing down houses, then garages, then bigger things. I remember a power plant in Pennsylvania he was working on. When he shot down that smokestack, I was intrigued from that moment on. You hear that boom, you see it falling down and

All that's left of building.

A brief history of an env

Operations at the pellet building have made a significant contribution over the years to Inco operations in Sudbury. Here is a brief history.

• In September, 1953, construction was started on a plant near Copper Cliff to treat 1,000 tons per day of nickeliferous pyrrhotite for recovery of nickel and by-product iron ore. This plant constituted the initial unit in an operation intended ultimately to yield about one million tons of high-grade iron ore annually

• Construction of the new 1,000-ton plant for recovery of iron ore from pyrrhotite continued during 1954. At the end of August, a concrete stack to serve this plant was completed. This was the world's tallest chimney, rising 637 feet above ground level.

• Construction of the new Inco pyrrhotite treatment plant (IORP) was completed, and preliminary operations commenced before the end of 1955. Production of unsintered iron ore was started in December.

• In January 1956, the first unit of the new Iron Ore Recovery Plant was commissioned, adding high-grade iron ore to the list of marketable materials recovered from Inco's Sudbury nickel ores. The first shipment of sintered iron ore pellets was made to Algoma Steel on February 1, 1956, and during the year shipments of iron ore pellets totalled 71,000 long tons.

• Inco entered into an agreement in 1956 with Texas Gulf Sulphur Company for the latter to build and operate a pilot plant at Copper Cliff to investigate processes for recovery of elemental sulphur from IORP fluid bed roaster gas. In 1957, the pilot plant was nearing completion.

• IORP production gradually increased and 1957 output totalled 113,000 long tons. The iron ore pellets were the highest grade open hearth quality iron ore produced in North America.

• Production rate at the IORP was substantially increased in 1958 and output in the pre-strike period totalled 127,000 long tons of iron ore pellets.

• After a post-strike start-up period, Inco operated at capacity throughout 1959 and deliveries of iron ore pellets rose to 162,000 long tons.

• Preliminary work was started in 1960 on a major expansion of the IORP which would triple its capacity when completed in 1963. This would permit diversion of large additional amounts of pyrrhotite from the Copper Cliff nickel smelter with important smelting economies.

• Construction of a $50 million expansion of Inco's IORP to triple its capacity started in 1961. During the year iron ore pellet sales rose to 231,000 long tons.

• Construction of the IORP expansion progressed favorably during 1962, with the first of the four new units scheduled for initial operation in March, 1963.

• CIL also acquired additional facilities in 1962 to increase the output of sulphuric acid from IORP fluid bed roaster gas.

• The major expansion of the IORP was completed and in operation by mid-1963. This involved capital expenditures of $50 million over a three-year period, and comprised the installation of four new roaster-kiln units, and corresponding expansion of the leaching, recovery and pelletizing facilities.

• Iron ore deliveries during 1963 totalled 458,000 long tons.

• The newly enlarged Iron Ore Recovery Plant went into full production in 1964, with

tom of the building. The boxes prevent the explosives from being detonated prematurely by adjacent blasts that "walked" in timed sequence

ling, Eric Kelly's career has exploded

then it's over. I made up my mind right there and then. That was for me."

He dropped out of university at 19 right into demolition. He probably had no right to but "I kind of horse traded my way into the business."

Since then, he's travelled the world. Taipei, Korea, Mexico, Scotland, all over North America. Along the way, he's acquired two sons from a first marriage who are interested in following in his footsteps and a Korean girlfriend with a second degree black belt in karate who's his biggest fan. He knows he talks a good game. Clearly attuned to media interest in the offbeat and the novel, he's given to statements that a controlled blast is better than sex. He's what journalists call "good copy."

But that side interestingly follows the work, the planning, the studying the building, the pre-weakening of the structure, the placing of the charges, the sequencing.

Listen to him a few days before the blast.

"It's hard to analyze a structure like this because the different areas had different uses so they had different column sizes. Bringing it down is a combination of past experience, analyzing of the drawings and figuring out what you have to eliminate in the building first. Once that's established, it's basically going into the building and physically doing the work and seeing how the building reacts. All the explosives are is a catalyst because the building (and the milli-second delays in the firing sequence) is set up to beat itself apart.

"There are formulas I complete but they are a trade secret. I'll put it in perspective. Take this mirror." He holds a small hand mirror. "You can sit on it now and it won't break. But if you take the glass away and sit on it, it'll collapse. Same with the building."

He smiles a golden smile.

The proof of what he said came with a stunning brilliance on the last Sunday of June, bright, clear and sunny.

Heralded by a precise series of detonation sirens, the actual blast silenced the crowd of Inco observers, Sudbury news media and onlookers near Fielding Road businesses.

Out of sight of all but in radio contact with Eric Kelly, Amadio Dalocci pressed two buttons to ignite the demolition. At the base of the pellet building, orange flames of fire signalled the blast. Seconds later came a thunderous roar. The earth shook and a cloud of black iron dust encircled the twisting wreckage and drifted east toward Kelly Lake.

At one minute past 9 a.m., as the click and whir of news cameras recorded the event, the blast ended.

There were handshakes all around. Kelly conferred with Kip O'Connor, operations manager for Greenspoon. His kids bounded to greet the grinning demo man. His lady embraced him. His 15 working days on the pellet building were over. Somewhere, Amadio waited for him.

"Time to go fishing," he tossed over his shoulder to media. "Time to unwind."

ronmental vanis hing act

an annual productive capability of 750,000 long tons of iron ore pellets. Sulphur Dioxide from the IORP fluid bed roasters was supplied to CIL in greatly increased quantities for the manufacture of sulphuric acid.

• Process improvements at the IORP in 1965 increased the throughput rate and improved nickel recovery.

• A major expansion was started at the Iron Ore Recovery Plant in 1967, intended to raise pyrrhotite treatment rate to 4,500 tons daily and to produce 1.15 million tons of iron ore pellets annually.

• Major expansion of the IORP went forward in 1968 toward completion in 1970. This expansion was intended to increase over-all nickel productive capacity at Copper Cliff by increasing smelting capacity and nickel recovery efficiency.

• Further work on the IORP expansion was deferred in 1969 so construction efforts could be concentrated on those facilities which would contribute most rapidly to nickel producing capacity. The IORP expansion, re-scheduled for 1972 completion, would increase iron ore pellet annual production capacity from 900,000 to 1,100,000 long tons.

The explosive charges are protected from premature detonation by adjacent explosions with a wood box.

• At Inco's Iron Ore Recovery Plant, the portion of the expansion work that had previously been deferred was resumed. When completed in 1972, this expansion was expected to raise iron ore capacity to 1.1 million tons per year and increase output of nickel oxide. Major modifications to improve product quality and provide additional pelletizing capacity were completed during 1970.

• The reduced capital expenditures by Inco in 1971 resulted from the cancellation, postponement or stretch out of several capital projects. One major reduction was postponement of the expansion at the Iron Ore Recovery Plant and cancellation of plans to build an associated sulphuric acid plant, because of escalating costs and lack of markets for sulphuric acid.

• Deliveries of iron ore pellets from the Iron Ore Recovery Plant, which totalled 638,000 tons in 1977, dropped to 355,000 tons in 1978.

• Iron ore pellet deliveries from the Iron Ore Recovery Plant were 630,000, 355,000 and 166,000 long tons respectively for the years 1977, 1978 and 1979.

• At the JRGRL, a mini leaching circuit was used in 1979 to develop a process for recovery of cobalt from Iron Ore Recovery Plant by-products. As mentioned previously, an electric furnace at the Sudbury smelter was also testing a process to improve cobalt recovery from converter slags.

• In May, 1980, Inco's Ontario Division suspended production of iron ore pellets at the Iron Ore Recovery Plant due to market conditions. Pellet department employees were transferred to other Ontario Division operations.

Mixed feelings about demise of an old workplace

Explosives expert Eric Kelly (left) readies a shaped charge and attaches it with a fellow worker to one of the Pellet building support girders. Explosive charges are protected from premature detonation by adjacent explosions with a wood box.

Inco employees and pensioners who spent extended periods working at the Nickel Refinery Complex's pellet building had mixed feelings about the structure's demolition.

Some, moved by nostalgia, said it was "like watching helplessly as your favorite childhood haunt is paved over."

Others say they would have lit the fuse.

"It was a good place to work. There were a lot of good people working there and I have some good memories of the place," said pensioner Bill MacKay. "I was on the first shift when the building first opened (23 years ago) and I worked there for many years."

Bill regretted not seeing the final end of his former workplace.

"I was in Toronto at the time (of the demolition) and I missed it, although I've been back to see how it looks now. Nothing but rubble. It's a little sad. It's like seeing the house you grew up in bulldozed."

But fellow pensioner Al Chellew isn't at all sentimental about the demise of the building.

"I saw enough of it while I worked there. It was a dirty place for people to work and I don't feel bad at all that it's gone. I won't miss it."

Al, a 36-year Inco veteran, worked at the plant from when it opened for business to his retirement in 1972.

Manager of Purchasing and Warehousing Brian McQueen remembers his six or seven years at the plant well.

"Was it a dirty place to work?" he laughed. "Well, you can get a pretty good idea about that from the dust that the blast kicked up."

According to the former superintendent (in the early '70s), the building was dusty and dirty mostly when there were equipment failures.

"It was a process that was very high in maintenance," he said. "And the revenue side was always marginal. It was always a balancing act to try to keep the costs down so we could make it economical. It was the kind of situation where you always felt a certain amount of pressure."

On the other hand, Brian has memories of good people, successes and innovative technological initiatives that made the work there challenging. "I guess if you spent that many years of your career in a place there's bound to be some nostalgia."

He recalls getting called out to the plant in the middle of the night because a huge shaft on a recuperater fan broke. "It was a big piece of machinery. The wheel was about 10 or 12 feet in diameter. I didn't believe it until I saw it. We found later that a design flaw caused the shaft to break about every four years.

"That's the kind of place it was."

The picture that (almost) wasn't

by John Gast

5...4...3...2...1... NOW!!

From our fifth-floor vantage point in the old roaster building, "Demolition Man" Eric Kelly delivered into a hand-held radio the command to detonate the pellet building explosives. Primed by countless movies, space shuttle launches and Los Alamos documentaries, I pressed both shutters when the countdown reached "1".

In anticipation of a fiery blast, the motor drive on my two tripod-mounted and prefocused Nikons whirred as it sent the film past the lens at about three frames a second.

No explosion.

In what seemed like an eternity, the camera ate up frame after frame of the limited film with pictures of an unexploded building.

Unlike the nearby video cameras that feature hours of film, there was enough for about eight seconds on the 24-frame color film in the first camera and 11 seconds on the 36-frame black and white film in the second camera.

Still no explosion.

Murphy's Law says the bright orange blast will come the split second after the last frame on both cameras is gone. I'll be frantically trying to reload the cameras while the most spectacular environmental shot of the year is happening before impotent lens.

Murphy's Law has been a constant companion in my 20 years of shooting. Murphy holds court only at fast action shoots that can't be restaged. Assigned to cover Ticat football games, I usually had Murphy hanging over my shoulder. Despite a dozen or so rolls of film and two cameras slung around the neck, the shot-of-the-game always appeared during reloading. Another time I missed a close-up shot of the then-Prime Minister Pierre Elliott Trudeau nose-to-nose with a picketer.

The blast came about 15 frames of film into the roll.

First the flash. Although Eric Kelly had warned photographers about flinching, there was no sound at all accompanying the bright yellow flashes. Piece of cake, I figured, until the sound came. I flinched with my fingers on the shutter, which is why pictures of the building in the blast sequence pictures are slightly off the left side of the frame.

While there was enough remaining film left on the cameras to get the entire blast sequence, there wasn't enough to capture the ground-hugging cloud of thick, black dust that rolled across the landscape in all directions, engulfing everything in its path and turning the scene into something like you'd see flying above the clouds.

The scene rivalled the blast itself.

Explosives are attached to girders above building ground floor.

HERITAGE THREADS

Going Through The Stock Bins Of My Mind

by Marty McAllister

Canadian writer W.O. Mitchell talks about the stream-of-consciousness method of getting the creative process moving: you just keep jotting down whatever comes into your mind, without stopping to sort or criticize. One thing leads to another thing, which in turn triggers the memory of something else. It can be a lot of fun, but pretty chaotic.

When I'm in an Inco heritage state of mind, my imagination can sometimes pour forth as from a cornucopia. Actually, more often like tin cans through a wet grocery bag: Inco story ideas all over the place: mental pictures . . . names . . . special events . . . sounds . . . even smells.

Smells?? Why not? Who could think of an underground fire drill . . . or Number One Changehouse at shift change . . . or the 1950s Lower Yard in a north wind . . . or the Elgin Street sidewalk outside the old Balmoral Hotel . . . and not recall the smells that trigger a dozen other memories?

And sounds? Of course . . . but I'm getting ahead of myself.

A Strange Warehouse

Before we start freewheeling, a word of caution: the brain may feed you a faulty memory.

I read a while back that human memory storage isn't arranged like your average warehouse: you don't have a compartment labelled "rose", inside which you would find a bunch of impressions neatly labelled "prickly stem", "beautiful red (or yellow, or whatever) petals," "sweet, pleasant fragrance," "mother loves them," and so on.

That would be far too organized for humans to handle.

Instead, our impressions are apparently stored at random — feel in one bin, taste in another, smells somewhere else — all over the place. So, when the time comes to remember something, some tiny stockboy in our brain scurries up and down these millions of aisles, trying to find all the bins that might contain anything to do with this old notion we're trying to dredge up. The little guy then drags all or most of the parts into a common work area — where he probably turns them over to a committee that's charged with memory reconstruction.

Of course, if he's swamped with orders, or gets tossed around by some migraine hurricane, he won't be too particular about getting everything absolutely perfect. "What the hell," he figures, "the committee won't know the difference if I say the boss is remembering a blue suit or a brown one. Keep it moving, I say."

Then, like a board of censors, the committee dresses up the final product so it's fit for release in today's enlightened world, creatively adding any parts that seem to be missing.

When you consider that all this happens within nanoseconds, even with a committee involved, it should hardly be surprising that the new memory may bear only a modest relationship to the original event.

So, the next time you're tempted to wonder how I can remember so much about the old days, you have my permission to wink.

Ready, set . . . remember

What things a remembered fragrance can trigger. A bottle of Mr. Clean, for example, offers vivid pictures from 1957.

My very first job at Inco was in the old Copper Cliff Mill, and anyone who ever worked there will remember its smell. Pine oil.

The mill's atmosphere was warm and heavily humid, what with its Denver cells and Geco cells and great sumps in the basement.

Which reminds me, Don Pierce once told me about working as a laborer hosing down that sump floor on night shift. The hose was of such a high pressure that he had to kind-of lean comfortably into it. Too comfortably. Poor guy dozed off — which set him up perfectly for another who was just waiting to close the valve. I have no record of what Don said as he collected his wet, embarrassed self from the floor. Some fitting recognition, no doubt.

The pine oil, of course, was used in the flotation process — but, since I'm neither metallurgist nor chemist, memories of that unforgettable smell conjure up visions, not of metal-laden bubbles, but of people and events.

Those were the days of real rock and roll. Jim Lee was the mill superintendent, and I remember my fellow apprentice, Pat Phillips, singing: "One, Two, Three ... look at Mr. Lee... "

Have I told you the one about Pat (I guess all the 'Pats' are filed together) Bradshaw? Under the mill aisle itself, where 34 rod and ball mills droned endlessly, number seven switchroom contained all the mill circuit breakers. We often had to work there. Pat was our leader, and, after he had us lined up, he'd sit to keep an eye on us. Before long though, the incessant droning would get to him and he'd fall asleep. Then, on the floor above us, some operator would decide to stop his mill. The big breaker in our room would drop open with a bang and poor Pat would jump up with a start, trying to look as if none of our work had missed his scrutiny.

Speaking of leaders and rude awakenings, it used to be our ritual at Creighton #3 Shaft to catch a lunchtime snooze in the 16-level (did the stockboy pick the wrong bin?) switchroom. Planks in position, burlap pillows fluffed, lights out. Total, blissful silence and darkness. One day, however, Wilf Moore, the underground superintendent pounded on the switchroom door at exactly 12:30. Quicker than you could say "we've been working through lunch time," we got to our feet, flicked on the lights and stowed our makeshift beds. Our leader, Art Cummings, then opened the door. We just might have gotten away with our ruse if Art hadn't put his hard hat on backwards. Even Wilf couldn't suppress a grin.

The Sound of Danger

I could've sworn I told this one before, but can't put my finger on it. Oh well, it's a good memory test: if the story comes out the same twice running, it's probably pretty close. Besides, it illustrates how sound can help lock in a memory.

The talk of Creighton #3 brought it back to mind. I was a shift electrician there in the '60s, and was often called to connect a large blast at the end of afternoon shift.

One night, as I climbed up the ladder to a sill drift (where they drilled and blasted in the old block caving method), I distinctly heard a guy singing: From a jack to a king (one of the late Roger Miller's greatest).

As I bumped open the little plywood door with my hard hat and poked my head through, I saw the singer: a miner, sitting on a powder box, surrounded by spilled bulk explosive and a tangle of hanging blasting cap wires — smoking contentedly while he belted out his best rendition of the day's big hit.

I never connected a blast more quickly; the damned fool could've turned us both into spaghetti sauce! I believe the stockboy in my mind has that one filed under 'sheer terror,' alongside 'mountain roads' and 'missed anniversaries,'

And, I wonder if Miller's doing a duet with that miner in the Great Beyond somewhere; he can't still be alive!

Inco's Neighbors considered in blast plans

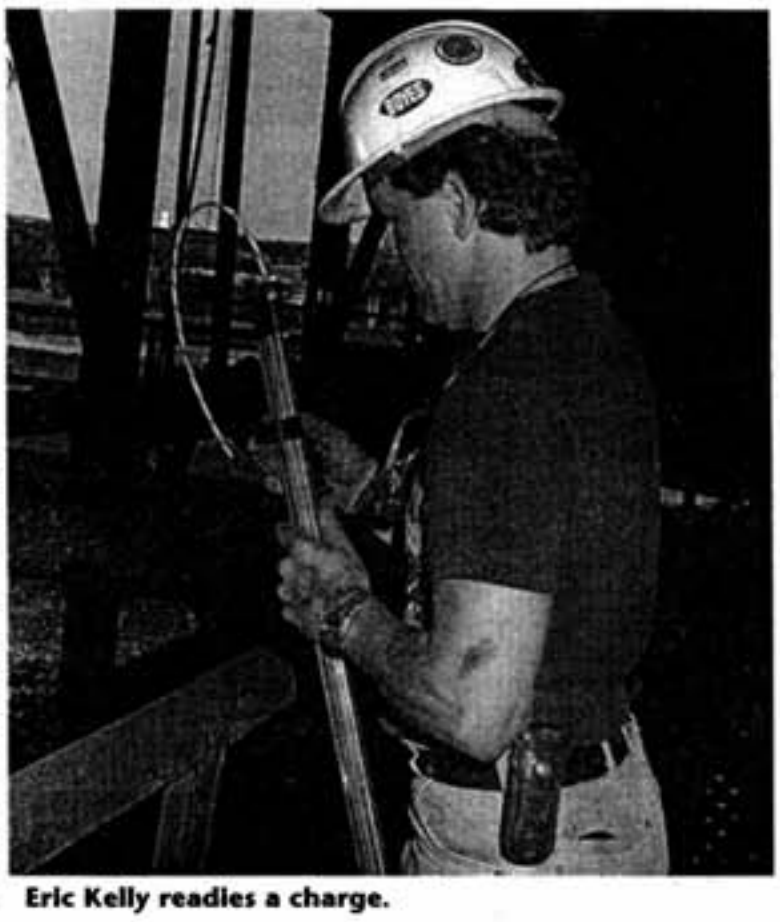
Inco's Nickel Refinery Complex neighbors were a prime concern in the company's final preparations for the demolition of the pellet building. To avoid undue alarm, complex manager Stewart Gendron sent a letter of information about the demolition to surrounding residents.

Dear Neighbor:

A landmark in our Inco history will disappear this week and as you are one of our valued neighbors, I wanted to share this news with you.

Since protecting the environment is one of our top priorities at Inco, we will demolish our long dormant pellet building at the old Iron Ore Recovery Plant on Sunday morning, June 27, 1993.

The demolition of this building, which was closed in 1980 after 23 years of service to our Company, is part of Inco's "progressive decommissioning" which is designed to restore inactive sites to their original state.



Eric Kelly readies a charge.

Several decommissioning projects are underway or scheduled this year, including the dismantling of the Levack Mill, and reclamation of abandoned sites at the Howland Pit, Chicago Mine and Copper Cliff #1 Mine. Motorists travelling Highway 17 near our Smelter Complex may have noticed major rehabilitation work at our slag disposal site, part of our continuing program of regreening.

To conduct the pellet building demolition, we have retained the services of Greenspoon Brothers, an Ontario company with international experience in the demolition field. Employing the safest, most efficient blasting techniques available, they will implode the building by means of specifically-engineered explosives.

For public safety, Greenspoon Brothers has established a 1,000-foot safety perimeter that will be enforced during the scheduled demolition. Since you live well beyond the safety perimeter, it is not necessary for you and your family to stay inside your home during the demolition that will take place between 8 a.m. and 9 a.m. Sudbury Regional Police will also interrupt traffic along Fielding Road and Highway 17 for a short time on Sunday.

Our sulphur products department fire sirens will be sounded five minutes prior to and immediately before the detonation.

We appreciate your support of our efforts to protect our environment.

Stewart Gendron
Manager, Copper Cliff Nickel Refinery

The Wainfleet riders underway.

At the starting line are Frank Muxoll of the Maintenance Department, Steve Ciazynski of Engineering and George DeRuyte of Accounting.

Port cyclists support fundraiser for the blind

In 1925, Lions International was "challenged" by Helen Keller to become "Knights of the Blind." Since that time, Lions have been instigating, servicing and funding sight-related programs on a world wide scale.

About nine years ago, Lions International began the "Journey for Sight" program through the more than 35,000 Lions Clubs worldwide. The primary mandate of the Journey For Sight is to create awareness of the need for sight conservation as well as assisting those who are already blind. Around the world, Lions Clubs hold annual parades, marches, ski-a-thons, walk-a-dog-a-thons and cycling events to help accomplish this mandate and to also raise funds to support the various programs.

When the first Journey For Sight bicycle ride was initiated in southern Ontario in 1985, it consisted of only one 100 mile ride from Fort Erie to Courtland, Ontario.

In this first year, only five riders took on the challenge and they managed to raise $5,000. Since, the event has grown to six different rides, including two from New York State that cross the Peace Bridge, all ending at Fort Erie, Ontario.

Last year more than 800 riders participated raising more than $110,000. The results of this year's ride are not yet known.

The Wainfleet Lions have been involved with the 100 mile ride to Fort Erie since its inception. Lion George DeRuyte, from the Accounting Department in Port Colborne has ridden for the last seven years.

Joining him this year are Frank Nuxoll, from the Maintenance Department and Steve Ciazynski from the Engineering Department. In total, these three riders gathered pledges totalling more than $2,200 from their fellow workers and friends. Support was also generously received from Inco Limited and United Steelworkers local 6200.

This year the Wainfleet Lions had eight riders participating in the ride raising over $4,700.

The normal sequence of events for the ride consist of travelling to Courtland the evening before the ride. Lodging is provided by local Lions Club Members.

Approximately 200 riders left Courtland at 7 a.m and had check-in points about every 15 miles. The final destination of Fort Erie was reached at 3:30 p.m by the Wainfleet riders after riding into the wind the entire route. Escort service and surveillance was provided by the Ontario Provincial Police and the local St. John Ambulance Service.

The monies raised from this event will be distributed among Canadian sight organizations and charities such as the following:

*Lions International Sightfirst Program which helps sight related projects such as vitamin A deficiency, river blindness, trachoma, cataracts, glaucoma and diabetic retinopathy.

*Canine Vision Canada which uses the funds to purchase and train guide dogs to assist the blind in their daily needs. The cost for training of one dog is $6,000.

*Canadian National Institute For the Blind which uses the funds to purchase special telephones, books and equipment as well as the funding for learning camps throughout Ontario.

Good participation in Port fitness campaign

You can spot maintenance man Fern Deschamps most lunch hours these days strolling around the Port Colborne Refinery property.

"That's one," said Inco Occupational Health nurse Sheila Orlando. "We're hoping that we've managed to inspire others to exercise more."

Sheila was referring to the second annual Canada Fit Week activities at the plant that served as an inspiration for Fern.

"We had about 80 per cent of the people here (approximately 350) volunteer to take part in the week-long event. Every lunch hour for the week, we took a walk around the plant and did exercises. We had a fitness consultant and a public health nurse in to talk to our people about the physical, mental and social advantages of physical activity."

Sheila said a draw was held for five sweatshirts and each participating member was presented with a cap.

"What we'd like to do here, rather than make it an annual event, is develop a program of physical fitness that we do monthly, weekly or even daily. We're setting up a committee of representatives from each department to set up the program."

Superintendent of Operations Del Fralpont directs the physical fitness activity.

Port Colborne employees on the march for fitness.

Retired employee Jim Walter and his wife Billie at the Port Colborne Historical and Marine Museum display.

Port museum focus on refinery outlines 75 years of community involvement

Throughout its 75 years at Port Colborne, Inco has always played a vital part in the development and life of this southern Ontario community.

To that end, as the Port Colborne Refinery celebrates its 75th anniversary in early September, the Port Colborne Historical and Marine Museum has pulled out all the stops with a unique display outlining the development of the refinery from its first construction camps to the present.

"Inco helped change the face of Port Colborne," says Kate Mossman, associate curator of the museum. "A lot of our ethnic population was attracted to Port Colborne because of the available work. It changed us from primarily a rural based community to a more industrially orientated one."

The display features several interesting artifacts of the time, including several photographs such as the one of the new plant opening in 1918, the construction camps, early payroll books, early tools and a paperweight made from the first nickel produced in the Port Colborne Refinery.

The paperweight actually belonged to the father of retired Inco employee Jim Walter who donated the majority of the pictures to the museum. Jim, who started working for the company in 1935, followed in the footsteps of his father, Herbert W. Walter, who began working for Inco in the early 1920s.

When he retired, Jim was serving as the assistant manager of personnel and industrial relations in Port Colborne. He also served as a senior industrial relations manager in Toronto.

A founding member of the museum, a former chairman and board member and still an active volunteer, Jim is thrilled to see the pictures on display for all to enjoy.

"I preserved them over the years, I didn't want to see them destroyed," he said. "I always hoped they would serve a purpose."

Jim says he's enjoyed looking through everything on display, particularly the old payroll records. As he glances through the early books, he recalls his own starting wage of 38 cents an hour.

"Another thing that really stands out for me is how they worked then, with picks and shovels, compared to how they work now."

Another recently retired Inco employee, Bill Kantymir, who served as superintendent of operations, is actively involved in the anniversary celebrations here and has also donated several items to the display.

With the City of Port Colborne also celebrating its 75th anniversary this year, Mrs. Mossman says the Inco display is a perfect compliment to the other city-related memorabilia which has been carefully placed around for all to see and enjoy.

"We hadß a fairly strong response from the public when the display opened," she says. "People are really having fun looking at, and comparing all the different pictures."

The display opened April 25 and will be open to the public until the end of the year.

FYH
FOR YOUR HEALTH
From the Occupational Medicine Dept.

Walking, the almost perfect exercise

Walking is a simple but great activity for young and old. It will help improve the quality and the length of your life.

It is inexpensive, can be done almost anywhere and can be adapted to any age or fitness level.

Walking is a low impact, smooth, rhythmical sport that does many things to improve you health and wellness.

During the nice weather in the summer most of use get out and walk. We feel better and have more energy to do things. It's easy to do because the weather is so nice. Without really thinking about it most of us start walking less as the cooler weather begins.

It's time now to plan how you will continue with a year round walking program when the weather is less friendly.

For those of you who do not walk on a regular basis, even in the summer it's time to start. It's never too late.

You may walk a lot in your job but if there are a lot of distractions and it is not continuous for at least 15 minutes and done at a brisk pace you are not getting a lot of the benefits so you should still plan a walking program off the job.

A GOOD WALKING PROGRAM should be interesting and be adaptable for how you feel. You should consider the following:

- Have different places that you walk and different distances
- Be sure to have a place to walk when the weather is not pleasant
- Decide whether you want to walk by yourself and use your walk as a time to think or whether you want to walk with your spouse or a friend and set this up. It usually works best if you have a plan. If you walk with someone be sure and change sides often to prevent any undue stiffness from turning the same way all the time.

How far or how fast should you walk?

- You should walk at a brisk but comfortable pace for at least 15 minutes
- Plan 3 alternate days of walking a week that are quite strenuous. It may be a mile or 3 depending on your speed and level of fitness.
- You should never walk fast enough or far enough that you can not talk to someone or sing to yourself. This is the talk and walk test.
- Plan the rest of the days that are shorter or slower. You will feel better even if you just walk around the block. You may want to walk with people of different fitness levels on different days.
- Start slowly and don't walk too far if you have just started. The important thing is that you don't over do it so you want to walk several times a week.
- Keep in mind walking is to make you feel better. You don't have to feel worse to feel better. You should be pleasantly tired after your long or fast walk but energetic soon after you finish. **MAKE YOUR WALK MORE CHALLENGING AND STRENUOUS** by increasing the distance that you go or the speed that you walk at.

You can also increase the strenuous of your walk by going your usual distance and speed but pumping your arms with your elbows bent rather than swinging them by your side. Pumping your arms takes 3 times more effort than swinging them.

You can increase the strenuousness even more by pumping your arms twice as often as normal.

FIND PLACES TO WALK ESPECIALLY WHEN THE WEATHER'S BAD. In nice weather there is no end to the places that you can walk.

Shopping malls are usually open early. They can be used if it's rainy, slippery or too hot or cold. Some even have lockers. Make sure you have good shock absorbing soles or insoles as the hard floors can often cause aching feet, legs or back.

In slippery weather find someplace that is ploughed. Parking lots are usually ploughed early.

You can walk in front of the TV. Decide how long you want to walk and just walk on the spot raising you feet 3 to 6" off the floor. The time goes very fast when you are watching your favorite program.

WHAT SHOES ARE BEST? It is very important that you wear shoes that have a good shock absorbing sole are not worn unevenly. Poor walking shoes may feel comfortable on your feet but you will find that you start having aches and pains in knees, hips, back and neck. These may be due to your shoes. Pay attention to how you feel after your walk and what shoes you were wearing.

WHY IS WALKING CONSIDERED SUCH A GOOD ACTIVITY? It does not usually cause injuries, it can be done by everyone, almost anywhere and it is very beneficial for your health and wellness.

The following are some of the things that regular walking can do for you:

INCREASED ENERGY. Walking improves the circulation to your brain so that the blood can get more oxygen and nutrients to your brain and make you more alert. It increases your brain's production of the "feel good," pain killing chemicals called endorphins. It helps decrease stress which often zaps us of our energy.

IMPROVED HEART FITNESS AND CIRCULATION. Walking increases circulation so that your muscles and organs and brain get the oxygen and the nutrition that they need to function effectively.

If you walk briskly for 15 minutes or more walking increases the fitness of the heart muscle so that you have more endurance and energy to do things.

WEIGHT CONTROL. Walking is an easy approach to a lifetime of weight control. You burn a few more calories and speed up your mechanism for burning calories. It is felt that significant weight loss takes place slowly and over time if you walk 12 or more miles a week on a regular basis. A walk before a meal tends to suppress your appetite. Walking promotes loss of fat rather than muscles. It is natural and not embarrassing if you are overweight.

STRESS. Even a 10 minute walk can reduce the negative effects of stress. You brain chemistry is changed and is more positive. Walking also improves mental alertness and memory and helps you put your problems into perspective. Walking can even decrease depression.

STRENGTH. Walking helps build strength in most muscles of the body. We become more flexible as muscles are stretched and joints are lubricated better. Regular walking also helps our bones to be stronger

PAIN. Walking increases your bodies production of it's own morphine type pain killer which will decrease pain. The movement of the muscles and the joints often decreases many types of pain as well.

SLEEP. To improve your sleep take a brisk walk 2 hours or more before you go to bed. This should help you fall asleep faster and increase the quality of your sleep.

AGING. Walking slows down the aging process. A study of 55 to 70 year olds found that walking briskly for an hour three times a week increased reaction time, organization ability and memory compared with people who weight trained or did nothing.

START NOW TO MAKE WALKING A REGULAR PART OF YOUR DAY. It's never too late to start.

INCREASED ENERGY

Walking improves the circulation to your brain so that the blood can get more oxygen and nutrients to your brain and make you more alert. It increases your brain's production of the "feel good," pain killing chemicals called endorphins. It helps decrease stress which often zaps us of our energy.

IMPROVES HEART FITNESS AND CIRCULATION

Walking increases circulation so that your muscles and organs and brain get the oxygen and the nutrition that they need to function effectively.

Walking increases your body's production of the good cholesterol and decreases hardening of the blood vessels.

If you walk briskly for 15 minutes or more walking increases the fitness of the heart muscle so that you have more endurance and energy to do things.

Ontario miners achieve best safety record ever

All the rules and regulations in the world can't make a workplace safe without the conscious effort of each individual in applying them. Beat 16 members, working on Levels 5,200 and 5,400 at Creighton Mine, certainly count as some of the most safety conscious of Inco's miners. The crew recently hit the enviable record of two years without a reported injury. From left (front row) are: mine foreman Reid Treasure, development miner Mel Hibbs, general foreman Bernie Fillon, driller John Whitehead, development miner Carl Adams; (centre) tram crewman Jim McKenzie, conveyorman Richard Boucher, drillers Ray Drouin, Don McDonell and Robert McIntyre; (rear) mine superintendent Fred Stanford, scoop operators Alex Migwans, Kenny Migwans and Herb Farmer, driller Pat Carriere, pumpman Rene Gauthier and driller Brian Musseau.

Julie Beach, left, and Emily Conrad compare their Inco tree seedlings.

Katie Condratto, 7, plants an Inco tree seedling on the hillside beside St. Thomas School. Her father Robert works for Inco.

Young environmentalists set down roots with help of Inco seedlings, know-how

"From dirty knees grow mighty trees."

An appropriate motto for a classroom exercise at St. Thomas School that could have subbed for a laundry detergent commercial.

On a gray spring day with light rains falling intermittently, about 25 Grades 2 and 3 students took to the muddy hillside around the Minnow Lake school to beautify the area with Inco-grown tree seedlings.

Learning was never this much fun.

Armed with shovels, seedlings and smiles, the youngsters took to their task with vigor.

"They certainly don't lack enthusiasm," said Inco environmental coordinator Ellen Heale, who directed the mass tree-planting and saw her tray of seedlings quickly disappear.

"I think it's refreshing to see such a healthy attitude towards the environment among people so young. It bodes well for the future."

Before the outdoor planting exercise, Ellen made a 20-minute slide presentation to the class that explained Sudbury's history, first as a lumbering centre, and later as a major mining area.

The presentation included slides of Inco's underground nursery at Creighton Mine as well as wildlife and plant life in the region.

"I enjoyed the presentation," said eight-year-old Brent Fleury, whose parents Mary and Grant both work at Inco. "I especially liked when they showed what happened here 100 years ago. It was interesting and I realize now how important it is to plant trees."

Seven-year-old Katie Condratto, whose father Robert works at Inco, said she's planted trees in her backyard before with her parents.

"It was kind of messy today," she said, shaking the dirt from her hands. "But it was fun. I liked the classroom presentation as well, especially the part about lumbering. That's something I didn't know before."

Like Katie, eight-year-old Mathieu Garneau had planted trees before in his yard. But he didn't mind getting messy again to plant trees around his school.

"It was fun and I learned some things," said Mathieu, whose father Marcel works at Inco.

"For instance, I didn't know Inco grew trees underground. I think it's a good thing they're doing."

Inco environmental coordinator Ellen Heale examines local plant life with Grades 2 and 3 students at St. Thomas School. Students looking at mullins (a species of weed) with Ellen are Sarah Jeanveau, Julie Beach, Kayleigh D'Amour and Emily Conrad.

A lift for Creighton

40 Years ago

New faces abounded in the Nickel Belt Senior Baseball League in 1953. Five teams had new managers and established local stars, such as Snug Mynerich and Ev Staples had switched from Creighton to Garson, while others had quietly retired. Imports were brought in to fill the gaps, some coming from as far away as Brown University in Providence, Rhode Island to ply their trade in the local baseball league, most of them trying to catch on with the Creighton Indians and the Sudbury Shamrocks.

The only team that looked the same as it did in 1952 was the Coniston team, which had won the league championship the year before.

Gerry Wallace was coaching and playing second base in Copper Cliff, and Norm Hann, another outstanding performer, had returned to Sudbury from the Intercounty Baseball League in Southern Ontario, and was coaching the Garson Greyhounds. Jerry Girard, the league batting champion the year before, was still clouting the ball for Creighton, and the thumping bat of Tubby Halverson led the power-packed Coniston crew.

Frood Tigers, with Bill Demkiw and Norm Johnson packing most of the punch at the plate, were solid in both hitting and pitching. With the pitching chores being handled by Spike Wormington, Don Goddard and Joe Schisler, they looked like the team that would give the Coniston club the best run for their money, as they had done the year before.

Garson seemed not far behind, with their new aquisitions from Creighton, and local stalwarts George Armstrong, Red McCarthy and Marty Burton.

Copper Cliff still had steady performers Bill Brown, Herk Flynn, Moose McQuarrie and Jack Duyvestun. The only unknown quantity in the league was the Sudbury Shamrocks, who were building a new team almost from scatch. Most of the new players would be imports. Other feature stories that month were: "Many Tributes to R. Leslie Beattie." "New Blacksmith And Welding Shop At Copper Cliff." "J.R. Gordon Now In Charge Of Inco's Canadian Operations."

25 Years ago

Five new mines were coming on stream in the Sudbury District to join Inco's nine operating producers in a race to increase the company's Canadian productive capacity to 600-million pounds of nickel per year.

Under development were the Copper Cliff North, Coleman, Little Stobie, Kirkwood and Copper Cliff South. Already producing in the unique geological formation known as the Sudbury Basin were the Frood-Stobie, Garson, MacLennan, Levack, Totten, Crean Hill, Creighton, Clarabelle and Murray.

Soon to be joining them were the Shebandowan mine in Northeastern Ontario and three new mines in the Manitoba Division at Thompson.

Other new developments in the Ontario Division included the deepest shaft in the western hemisphere (7,150 feet) at Creighton, new shafts at Frood-Stobie and Totten and expansion of the Clarabelle open pit operations.

Other feature stories that month were: "Three-Day Canadiana Festival Marks 101st National Birthday." "Thompson Collegiate Marchers Raise $7000.00 For Care Of Canada Cause."

15 Years ago

Thank goodness that's over they must have thought in the smelter's process technology department when a new climber was installed on the base of the 'superstack' to whisk them up the 266 feet to special monitoring equipment measuring concentrations of S02 emissions.

The climber, operating much like a car on a vertical railroad track, was equipped with a battery operated lighting system and an inter-plant telephone. With a capacity of 2000 pounds, it travelled at a speed of 120 feet per minute. If the speed exceeded that amount, an automatic safety device slowed the car down.

In the event of a power failure, a manual brake and hand release allowed the passenger to lower himself to the ground.

The climber cost Inco approximately $115,000 that year.

Other feature stories that month were:
"New Rolling Mill Starts Up In Walden."
"Garson Mine Wins Annual Mine Rescue Competition."
"N.F.C. (Northern Ontario Football Conference) Celebrates 25th Anniversary."

Tax savings and marriage don't always mix

Thinking of tying the knot in the near future? If money is a problem — and when isn't it — postponing that walk down the aisle could mean more dollars in both your pockets.

In many instances, at least from the perspective of tax law, marriage is a change for the worse. Yes, the married status tax credit becomes available if one spouse has little or no income. But one income families are the exception these days, not the rule. So that tax credit may not mean a thing.

And the tax rules generally want you and your new spouse to share a variety of credits and deductions. Seldom will this be to your benefit.

Much Larger GST Tax Credits

Let's look at one in which not being married can make a difference. The new GST refundable tax credit is worth $190 plus a $100 bonus if you are single. The credit declines as your income rises above $25,000, and the bonus is wiped out as your income drops from about $13,200 to $6,200.

So, if you and your partner remain unmarried and each earn less than $25,000, you'll receive a total of $580 ($190 plus $100, times 2).

However, if you get hitched you might get nothing. That's because the $25,000 income threshold will be based on the total of both your incomes. Thus, if your combined, family income is $44,000, your GST credit will be zero. Even if your combined income is less than $25,000, your credit will only be $380. Because you are no longer single, you each lose the $100 bonus.

Two Tax-Free Homes

Remaining unmarried will also entitle you to two tax-free homes. It's true that most young couples have trouble putting together the cash for just one home, but many couples contemplating marriage for the second time around, come equipped with at least one house and often two.

As a single person, you are entitled to a tax-free gain if you sell your principal residence, which is just a fancy name for your home.

However, since 1982, married couples have only been able to claim this tax exemption for one home only on gains related to years after 1981. Before 1982, each spouse could claim a tax-free gain on one home.

There is another situation in which delaying your vows could pay tax saving dividends. A special deduction of up to $5,000 for part-time care is available if you are disabled but still working. However, this deduction is not available if the wages for the care are paid to someone related to you. Your new spouse would definitely be related to you.

If you don't get married, you can pay that $5,000 to your partner, take the deduction, which produces a king-size tax saving, and keep the money in the family.

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Sudbury, Ontario

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

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