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On the cover

Our cover picture this month might look familiar to our Sudbury readers. It is a behind the scenes look at one of the Inco commercials that have been aired on Sudbury television. For more on these commercials see story on page 14.

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Hats off to smelter roaster crew for impressive safety record



Brand new digital wrist watches were presented recently to Maurice Ouellette's roaster crew at the smelter for going three consecutive years without a single losttime accident. Co-operation and looking after one another were reasons offered by some members of the crew for their success in safety. Tom Antonioni, superintendent of the reverb furnaces, left, and Moe Ouellette, foreman of the roaster crew, right, congratulated crew representatives, second from left; Les King, Don Lavallee, Bob Pelland and Andy Dollement. The majority of Moe's roaster crew is shown in the other two photos. Congratulations on a fine safety record!



It has been said that the spirit of Christmas can be seen on the faces of children. The following three pages certainly verify this. They were taken at some of the many Christmas parties held for children by the different departments and areas at Inco's Sudbury operations.



General Offices











Frood-Stobie Complex

Garson Mine









Transportation and Traffic









Creighton Mine





Copper-Cliff Mines Association





The maintenance men and riggers drift seven tons of worn sheave wheel through the tight confines of the Frood number three headframe.

Planning and precision brings in the sheaves to Frood



The alignment of the new sheave wheels is the topic of discussion by, from left, Dave Mann, Bill McGovern, maintenance engineer and Doug Prestage.

What does it take to replace a pair of seven ton sheave wheels in the restricted confines of a headframe? Planning and precision say the riggers and maintenance men at Frood mine. They ought to know last September they changed two sheave wheels at Frood number three shaft.

Sheave wheels are the grooved rims that act as pulleys keeping the rope between the hoist and the cage in perfect alignment. Generally, they have quite a long life expectancy. The sheave wheels in Frood number three had given 32 years of flawless service, 24 hours a day, seven days a week.

Sheave wheel wear is monitored every six months by machinists who log each measurement. When it has worn 9/16 of an inch, rope alignment is sufficiently threatened to warrant a change of wheels.

The decision to remove the old sheave wheels having been made, the task of planning the operation fell into the capable hands of Dave Mann, maintenance general foreman, Doug Prestage, maintenance foreman, and Wayne Bontinen, zone planner. Together they worked out a five page procedure detailing the safest method of completing the job.

Engineers Bill McGovern, Ray Boucher and student Nick Rebic arrived a couple of weeks before the commencement of the job to take some measurements. Number three shaft was shut down for three days beginning September 27 to enable the sheave wheel change to take place.

Perhaps the most important part of the exercise came before work started. A meeting was held to familiarize everyone concerned with all aspects of the operation. "We took all the people involved with the job and the procedure over to the trailer and discussed the job for two hours." Dave recalls.

Continued on next page



It is 180 feet straight down from where the sheave wheels are housed

Sheave wheels

Banking the cage and removing and securing the cables were the first steps of the change. Huge babbit bearings were dismantled and replaced with a new roller type of bearing that should perform better and require less maintenance. This, says Doug, necessitated a more scrupulous alignment than usual. "We had to adapt our shaft to a whole new bearing set-up," he states.

Secured with chain blocks, one sheave wheel was hoisted out of position by a crane. Good communications, Doug emphasizes, were essential to the success of the whole operation. He sat in the headframe relaying instructions over a radio transmitter to the craneman, 180 feet below on the ground. As a precautionary measure, he operated the crane by remote control 30 feet away from the cab.

The most difficult work came as the riggers and maintenance men guided the unwieldy wheel of steel with its seven foot shaft out of the confined space of the headframe. As Dave points out, a mere touch from the huge, 12 foot diameter, sheave wheel would shake the entire headframe. Tilting, twisting, and turning they manoeuvered the wheel out the door to the ground. The exercise was repeated for the second sheave wheel.

The new sheave wheels were then put into place. Manufactured in England, the new wheels weigh a little more than six tons and are of fabricated, all-weld construction. The old variety were made in the traditional poured cast method.

The sheave wheel change was finished ahead of schedule. Had it not been for a blown generator the work would have been completed even earlier. Most importantly, Dave stresses, the work was done safely.



The crew removes a bearing cap so the second sheave wheel can be lifted out of place. The men stand over the pit where the first sheave wheel sat. Here, from left, are, Harry Stephenson, Marcel Rivet, Murray Kuzenko, Jake Bzdel.



Doug Prestage, maintenance foreman of the riggers (right), points out a problem with the splice joint to Dave Mann, maintenance general foreman.



Jerry Perrin holds a flashlight for Bill McGovern as he makes a precise alignment of the sheave wheel.



From left, are Marcel Rivet, Dave Mann, Harry Stephenson, Pete MacDonald, Murray Kuzenko, and Doug Prestage. They're in front of the newly installed sheave wheels. A job well donte!

Unique Christmas tree decorates bucket shop at Creighton



The Christmas spirit invaded the bucket shop at Creighton mine and it inspired the platers and welders to produce a most unique Christmas tree. Using pipes, chains and steel plate they fashioned a stem, branches and ornaments such as horse-drawn sleighs, moose, a star and even a couple of miniature buckets. They added some coloured lights and presto . . something completely different in the line of artificial trees.

Here, proudly standing beneath their creation are, from the top, Oly Barnault, Norm Levesgue, John Kirnich, Vic Luoma, Mike "Hook Nose" Wasyliw, Perry St. Jacques, Eddy Pitton, Andy Phillips, and Enci DiFillipo, foreman.

The Joint Federal/Provincial Enquiry Commission into Safety in Mines and Mining Plants recently held two hearings in Sudbury. The following are excerpts from the reports submitted by the Ontario Division of Inco Metals Company.

"All of us in the Ontario Division of Inco Metals Company have been seriously concerned with our safety performance during 1980," said Winton K. Newman, president of the Ontario Division of Inco Metals Company in the company's first of two submissions to the Joint Federal/Provincial Enguiry Commission into Safety in Mines and Mining Plants hearing in Sudbury. "We have made extensive efforts to maintain and improve our overall safety performance and programs, however, in 1980 our accident frequency in all classifications increased sharply after a period of several years of gradual but encouraging improvement."

During the first appearance before the committee on September 16, Mr. Newman and other senior company officials reviewed the company's current safety performance and provided a description of the company's safety organization, training for safety, communications for safety, engineering for safety and safety statistics.

The company's submission detailed initiatives, both new and continuing. which have been undertaken in an attempt to reduce accidents within the operations.

Mr. Newman noted that in recent years the company has intensified its efforts in accident prevention. including the implementation of many recommendations as detailed in the Ham Royal Commission.

"During 1980, we have been experiencing an unacceptable safety performance, " said Mr. Newman. "On July 2nd, we announced measures to review the effectiveness of our safety programs and practices including a significant increase in the number of safety supervisors assigned to our Sudbury operations and the commencement of a Safety Workshop Program. We have also

intensified our internal safety audit program and initiated a joint safety audit of operations and safety practices in the Ontario Division by M.E. Young, a retired Inco mining executive, and N. Carriere, a representative of the United Steelworkers of America." Policy on Safety

Before describing the Ontario Division's safety programs and practices to the commission, Mr. Newman explained that Inco is committed to:

- 2. To develop in each employee a sense of job responsibility embracing his own safety and that of his fellow employees.
- To develop effective means of communication between each employee and the Company regarding health and safety matters.
- To provide standard procedures covering all safety and health aspects, especially regarding new methods of production and use of equipment.



Reviewing the Company's submission are, from left, Albert Magee, director of human resources and environmental services. Tom Parris, vice president of mining and milling and Winton Newman, president of the Ontario division of Inco Metals Company.

conditions with the objective of safeguarding the health, safety and general well-being of its employees."

To assist in the achievement of this policy, the Ontario Division adopted several principles which have guided the development of our safety program. The principles are as follows:

1. To strive to eliminate injuries and ill-health from work incidents and conditions.

- "providing suitable work facilities and 5. To train each person so that he has the knowledge and skill to do his work safely.
 - 6. To provide prompt and competent aid if an injury is sustained in order to minimize suffering and promote recovery and rehabilitation.
 - To investigate the cause of every accident regardless of whether or not injury results, and carry out follow-up action to prevent a recurrence.

Implementation of these principles

involves all of our employees and will continue to require the commitment of all parties in an effort to achieve an acceptable safety performance. It is considered however that the accomplishment of such a performance requires a safety program which contains the following elements:

- An effective and capable organization structure.
- (2) A well developed acceptable training program.
- (3) A high degree of communication and employee involvement.
- (4) An experienced engineering function to ensure the design and implementation of safe work facilities and conditions.
- (5) The guidance and assistance of external agencies dedicated to safeguarding the health and safety of employees.

Mr. Newman then described the Company's safety program. The following excerpts are from the Company's submission.

TRAINING FOR SAFETY

Generally defined, "Training for Safety" can be looked at in two broad categories — training in the correct and safe manner in which functions are performed; and training on an ongoing basis which re-inforces safe work practices and safety awareness.

Safety must be, and is, an integral part of training which provides the basis for an employee to be able to properly carry out each function of his job. An induced awareness of the hazards associated with each job must be instilled in the trainee to ensure his continuing awareness of the possibility of being injured and an understanding that safely and properly carrying out each and every function is essential to avoid injury.

In 1976, an extensive review and analysis was made of the various approaches to training which had been used over a number of years. This review also took into account the findings of the Ham Commission Report and concerns expressed by the Union and the Ontario Government "Modular Training System."



Milt Jowsey, left, assistant vice-president of mining and milling, has a word with John MacDougall, vice-president of engineering and maintenance services.

The analysis of our varied training experience indicated to us that the training employed in our Instrument Mechanic program since 1970 and that employed in the I.P.C. department of our Copper Cliff Nickel Refinery since 1972, had the necessary ingredients upon which to build a program for our entire Division. Such a program would represent the necessary consistency and comprehensiveness required to positively impact on safety, worker satisfaction and productivity. It is important to note that the Ham Commission report pointed to the I.P.C. training as an example of good training and one that should be used across the industry. In addition, taking this direction was consistent and compatible with the laterdeveloped "Common Core Program for Basic Underground Hard Rock Mining Skills". We are pleased to have contributed along with other O.M.A. members, Union representatives and the Ontario Government in the establishment of this Tripartite-developed program

Having made the decision to implement this type of system, major personnel and financial resources were required to identify and document the training materials. Thirty Inco personnel were assigned for a period of 18 months to write the approximately 1100 training modules required. Input from many more employees across the Division at all levels was required and used in the development and in the on-going updating of our training modules.

The use of these training materials in structured training programs began in July 1979. Since that time upgrading programs for specific groups of employees have commenced.

COMMUNICATIONS FOR SAFETY

Development of effective two-way communication between an employee and his foreman is vital to the prevention of accidents. While it is the primary responsibility of the foreman to give clear and understandable instructions on work practices to an employee, it is also equally important that the employee follow accepted procedures, maintain safety standards and report to the foreman any unsafe condition which he is unable to remedy.

We are continuing our efforts to encourage the feelings of mutual confidence and respect in our people, and feel that improvement in our accident experience is related to our success in this endeavor. Such efforts require a significant degree of cooperation between the Union and the Company, and have been reflected in the operation of joint committees. They include:

- The Operational Safety, Health and Environment (O.S.H.E.) Committee which is organized at departmental levels.
- (2) The Area Safety, Health and Environment (A.S.H.E.) Committee which is organized at managerial area level.
- (3) The Review Safety, Health and Environment Committee.
- (4) The Joint Safety Audit.
- (5) Safety Workshops.

continued on next page

ENGINEERING FOR SAFETY

In addition to the safety program, we recognize clearly the role of engineering in ensuring a safe operation.

Planning for safety in our operations, therefore, begins at the concept stage in the design of new projects, mining methods, and equipment, and continues until project completion. Specific emphasis is directed toward ensuring the safety of the people who will eventually be working in the environment, or with the equipment. Cooperation between our internal engineering groups and between suppliers and contractors is essential and we endeavour to ensure that it is achieved.

Engineering and geological services for the mines and plants in our Ontario Division are provided by three departments:

The Mines Exploration Department. the Mines Engineering Department and the General Engineering Department.

The functions of each department were outlined. They include: ground control, mine and plant layout, design, testing and purchase of equipment, research and development and production processes.

INCENTIVE BONUS SYSTEM

During the first meeting, Tom Parris, vice president of mining and milling, described in detail the incentive bonus system.

Since 1980, Inco Metals Company has utilized an incentive bonus system primarily in its underground operations. The system is known as the Inco Modified Standard Hour Plan. The Plan is designed to make available equitable incentive standards that provide an equal bonus earning opportunity to all participants in the plan. Its objective is to provide incentive to employees to contribute extra production by the more effective use of their time, skills and experience, thus increasing their productivity.

Our experience has indicated that an average worker working under



The three man commission are, from left, Keith Rothney, chairman of the safety and health committee of Local 6500, commission chairman, Kevin Burkett with the Ministry of Labor and Peter Riggin, vice-president of corporate relations for Noranda Mines.

approved standard conditions at an average rate will earn a bonus of 22% of his wage rate if available time is effectively utilized. Higher than average rates can also be earned by planning work more effectively and displaying a higher degree of personal dexterity and efficiency than the average worker.

Our incentive bonus system is confined largely to the Mine Section. Of the 3,072 employees working on incentive bonus, 2,925 or 95.2% work in the Mines Section. These 2,925 employees make up approximately 40% of the work force in the Mines Section in the Ontario Division.

The type of work to which the incentive bonus system can best be applied is essentially that which can be broken into work units and accurately measured by recognized methods. Examples include till method stope and pillar ore production, the advance of development headings such as drifts and raises, blasthole and exploratory hole drilling, tramming and ore removal, timber and ground support. Large construction projects and auxiliary service work such as equipment maintenance, crushing, hoisting, ventilation and clean-up are not included in the incentive system.

In addition, we do not include in the incentive plan, work sequences or tasks in which the potential hazards are such that extraordinary precautions are required and for which normal safe work practices will therefore not suffice. Such higher hazard situations, after due consideration by supervision and the crew, are removed from the incentive plan and the work proceeds "off contract" under controlled conditions until the particularly hazardous condition is removed or reduced.

At the conclusion of the first hearing Mr. Newman said that the Company, through the measures outlined in its submission is committed to achieve a single objective — the reduction of accidents and in particular fatal accidents. In these efforts we are further committed to cooperating fully with the Union, government and all associated agencies. we recognize that ultimate responsibilities for achieving this goal rests with company management, and we are confident that, with the cooperation and assistance of our employees and the parties listed above, we can achieve a significant and lasting improvement in our safety performance.

UPDATE AT 2nd HEARING

On November 26, Mr. Newman and several other senior company personnel appeared again before the commission to present additional information on Inco's safety program Mr. Newman reviewed the Ontario Division's safety record and responded to requests from the commission for additional information following the initial presentation on September 16.

"Since August, 1980, we have experienced a small but encouraging improvement in our injury frequencies." said Mr. Newman. "In addition, a significant reduction in injury severity has also occurred. In recent meetings, we have communicated this encouraging trend to the executives of local 6500, United Steelworkers of America, and to our divisional management personnel, and we have renewed the commitment of both parties to strive for further improvement."

The company's submission provided the Commission with an update of safety performance and presented additional data on the relationship between injury frequency and the incentive bonus system. The results of the safety workshops, the joint company/union safety audit and a review of training programs were also included. The company also responded to several briefs submitted earlier by the United Steelworkers of America and by individual employees. The company's submission provided the Commission with additional information on efforts towards accident prevention in the company's mining and processing operations.

In responding to several questions regarding the incentive bonus system. Mr. Newman suggested that without an incentive system, our mining operations could not be undertaken

experience. For example, a large majority of the working places in our mines are two or three man operations, and there are over 500 separate incentive contractors in operation at any one time. The efficient operation of these working places depends greatly on the skills. motivation and aptitude of our miners. All of this work is essentially carried out in a self supervised atmosphere. by small work groups with effective input to planning, procedures and equipment requirements. We feel that the presence of the incentive system encourages the development of this work practice, and provides opportunities for individual contribution in a self regulated atmosphere. We further feel that there is no statistical support for concluding that the elimination of the incentive system in our particular mining operation would result in an overall improved safety performance.



Mel Young, left, an Inco retiree and Norm Carriere from the Union presented their findings on the joint safety audit.

with the degree of efficiency and productivity that we currently

A key initiative in the company's accident prevention efforts was the safety workshop program started in mid-July. In total, 594 meetings were held involving 12,484 employees. Input from employees was considerable and varied widely to reflect individual employee and plant concerns. The workshops were characterized by open discussion on all aspects of safety and related subjects. The program has been completed throughout the operations and the information obtained from this program is currently being assessed.

The company's submission reviewed the joint company/union safety audit of operations and safety practices in the Ontario Division. The audit, which was undertaken by Mel Young, a retired Inco mining executive, and Norm Carriere, a representative of the United Steelworkers of America, was one of the safety initiatives announced July 2, 1980. Its objective was to generate workable recommendations that would, if implemented, reduce the number of injuries toward a 'zero' target level. The company's submission included 29 recommendations by Mr. Young and Mr. Carriere. Each item in the audit is currently under review.

The company also presented information to the Commission on its extensive training programs. Topics included the company's first-line supervisor training program, the evaluation of first-line supervision with respect to safety performance, continuing training of first-line supervisors and how individual employee training requirements are determined.

Mr. Newman concluded by saying: "We again wish to take this opportunity to express our commitment to achieving a single objective with regard to our safety performance, namely the reduction of injury frequency and in particular the elimination of fatal accidents. In this regard we have appreciated the assistance of the Union and the contribution of our employees.

We also clearly recognize our primary role as management in this regard and restate our intention to fully co-operate with the Union. Government and all associated agencies in efforts directed toward achieving and maintaining an acceptable safety performance." The Inco runner competes. The great meteor crashes once again into the Sudbury basin. The miracle of flight is recreated and the role of copper in communications is portrayed on your television set.

The Inco T.V. messages are familiar to most people in Sudbury now, but the story of their production stretches over a year.

Back in January, 1980, the ideas for the messages were just beginning to come together. How do you show the importance of nickel in aircraft development? What's the best way of telling about copper in radio and other electronic applications? Can we really make the meteor float in space? The ideas were forming but it wasn't until almost May that the final scripts were ready. During the time, almost every detail had been revised. Camera directions had changed many times as had whole scenes, props, actors and the announcer's words. Even the music which would play in the background came under close scrutiny as the productions were refined.

Finally, near the end of June, everything began to gel. Actors were chosen for each part. Locations were visited to make sure they matched exactly what was called for in the script. One film crew member had spent a week rounding up 1930's clothes, a juke box, a six-foot globe, and an antigue car.

In the meantime, others were making arrangements to film in a studio, a stadium, an airport complete with planes and crews, and a operating room. Tall orders but each of the locations and props had been called for in the scripts and, besides, off-beat requests like these aren't unusual in film production.

The detailed production plan called for each scene to be shot at a certain time which meant that film crew, actors, props and hundreds of pounds of equipment had to be moved and set up.

The first scene filmed was to be the runners. At 5 a.m. the film crew began to assemble as trucks were loaded and gear was checked and double-checked. By 7 a.m. the first drops of rain began to spatter from a sky that the weather forecasters had said would be blue and cloudless. By 7:30 it had turned into a deluge and frantic arrangements were under way to send the runners home for the day while the film crew was rescheduled to a studio to begin shooting the meteor.

For the next 10 days, the weather man missed on almost every opportunity. When he said rain it turned out sunny and warm. Actors were cancelled, called back, recalled and recancelled. Finally, every sequence was filmed though not without a few more incidents to upset plans.

The original script had called for a soaring Canada goose to open the 'Nickel and Flight' production. When the crew arrived at the pond location. the geese were there alright. Hundreds of them. Everything looked just right as the camera was set up and preparations were completed. Everything, that is, until the moment when an attempt to coax a goose into flight was made. After much chasing and shouting and even a bit of bribery with bits of bread and peanuts, it was discovered that the proud birds had been so well fed by tourists they were reluctant, unable and unwilling to fly! The script was changed, right there on the spot, to feature a seaguli which would, and did, fly past the camera. Everybody wore a hat for the occasion.

In the meteor production, the world was depicted with a six-foot globe suspended in a studio on a fine wire. The earth's atmosphere was cotton glued onto the surface. The script called for the meteor to burst into flames as it approached the earth's surface and this was done with lighter fluid. On the first take, the meteor caught fire, as planned and zoomed toward the earth. Everything looked terrific until, at the very end of its travel, the flames leaped from the rock to the cotton and the entire earth went up in smoke.

Several hours later, when the studio had been cleaned and the

"Brought Inco Met



One of the most technically difficult commercials to shoo Sudbury basin. Here the film crew prepares the studio.

earth restored to its original beauty, the meteor flames were dropped from the script.

The rest of the summer was spent in editing film, recording the announcer's voice, mixing the music tracks, adding special effects and transferring to videotape for broadcast.

Long hours of labour have produced several deceptively simple looking commercials. They, hopefully, will have the effect of showing that the employees of Inco Metals Company in Sudbury play a vital role in the metals industry.

to you by the people at als Company in Sudbury"



vas the meleorite impact on the



The pilot, in the "nickel and flight" production, sets up for the next sequence.



Framed by cameras and lighting equipment, the cast prepares for the next scene in the "copper in communications" commercial.

Garson Ridge Runners take to

What should a group of men do when they find they all own four wheel drive vehicles, enjoy hill climbing and like each other's company? It only seems natural to form a club and it appears even more exciting when that club could be of service to the community while everyone is having fun.

Ideas and questions such as these surfaced in the Garson area several years ago. The answer was to form the Garson Ridge Runners Four Wheel Drive Club, a social, non-profit club for the purpose of entertaining members and the public. It wasn't long before 19 families applied for membership. Over the last two years, the club has been attending and holding fund raising events such as hill climbs, rallies and camp-outs, with proceeds going to many various charities in the Sudbury area, says Fred Grylls, an electrician at Inco's Garson mine and member of the club. In addition, the families have collected a considerable amount of money from car washes and dances.

"We were the winners of the 'most original entry' in the 1979 Sudbury Santa Claus Parade," says Fred. "And in the Sudbury Sandblast, an annual event we have on Labour Day, we raised money for the YMCA telethon and other occasions. This weekend event was an interprovincial race for four wheel drives and was a great success. The annual November Trail Ride was held for the Big Brothers and Friends."

Most people, says Fred, associate four wheel drive clubs with a group of overgrown kids playing with toy trucks. But it just isn't so. The club allows the families to socialize with each other, and gives families something to do during the nice weather. Wives and children accompany the men to out of town functions.

"You'd be surprised how well some of the wives can drive. Two of the wives entered one of those small



Warming the trucks up prior to the hill climb looks very much like a parade but is an important part of any event.

the hills with vehicles

car railies in Sudbury and won." Although the season for hill climbing and racing ends when the heavy snow hits the ground, most of the members stay in touch over the winter months. Hunting parties during the fall and dances during the winter keep the club going until the ground thaws and summer tires are back on the trucks.

The tires spin and mud flies as Ray Renaud crawls over the top. Ray is employed in the maintenance department at Inco.





After a fun-filled summer, some of the members of the Garson Ridge Runners Four Wheel Drive Club get together for one last day of fun in their vehicles. They are, from left: Emile Legault, Rene Lemarche, Jack McFarlane, Brian Desjardins, Claude Pennarin, Frank Lebreton, Terry Franklin, Fred Grylls, Doug Peerla, Bruce Thorne, Lee Wright, and Ray Renaud.



A large rock on the course could be a potential hazard to both the driver and his vehicle. Fred points to a safer route and trouble is avoided.

PEOPLE M



Dave Huggins, manager of process technology, was recently awarded the Sherritt-Gordon Medal by the Canadian Institute of Mining and Metallurgy. The award recognizes his work in the field of hydro metallurgy at Inco and his involvement with the metallurgical section of the CIM.

During their first visit to Inco's Sudbury operations, patent attorneys from Inco's New York offices toured various facilities including Creighton nine shaft, the smelter and the copper refinery. The guests visited the copper refinery's silver building where they viewed the process of electrolytically refining silver. The tour group consisted of, from left; **Bill Cook**, Inco Metals' legal officer. **Sirio Bacciaglia**, Inco Metals' division property analyst, **Bill Hudgins** from the smelting and refining section of the industrial engineering department, patent specialists **Ed Steen** and **Gil Rudman** and tour guide **Mike Legault** of the copper refinery's industrial engineering department.



Charles and the second standing the second

Ed Skene, supervisor of budget and cost control, left. Merv Dickhout, manager of mines engineering, and Choon Park, planning engineer, examine the agenda they have planned for the Canadian Institute of Mining and Metallurgy's Fifth Annual Underground Operators' Conference. The conference will be held at the Holiday Inn in Sudbury from February 15 to 18. Four hundred delegates from across Canada are expected to attend. In addition to presenting technical papers and discussing the more practical sides of mining, delegates will tour several mines in the area.



PEOPLE





Esko Vainio, executive director of the Sudbury Memorial Hospital, stands beside a burn bath, one of the features of the newly constructed Critical Care Unit. Inco has donated \$25,000 to the CCU fund drive. When the \$1,086,000 project is complete, northeastern Ontario will have a 15 bed special care unit for critically ill people whether they be intensive care, coronary or burn patients.





Pretty Jolanda Malicki spent part of last summer as a hostess at the newly opened, "Ontario North Now" pavillion in Toronto. The 17 year old Nicket District Secondary School honors student was one of only five district students selected. Jolanda calls the experience "great" and adds that she too learned a lot about the north country. She is the daughter of Stanley, an Inco pensioner, and Wieslawa Malicki.

John Whelan's boys in the garage at the smelter take care of a lot of company vehicles, but they also take care of themselves at the same time. The last lost-time accident in the garage was reported on September 5, 1974. The garage gang consists of, front, from reft, Metro Brezdan, John Maslakewycz, Al Dechaine, Franz Sabel, John Whelan; back, from reft, Cec Przybylo, Jim Williamson.

___PEOPLE



Alex Killah, a general foreman with divisional shops, is proud of the car shop men. It was over six years ago, on June 24, 1974, that a lost time accident was last reported in the car shop at the smelter. That is over 199,655 safe hours of work. Here from left are, Romeo Labelle, Fred Desloges, Bernie Beauline, Connie Martel, Corino Natale, Marco De Conti, Jeff Labelle, Eddie Rogers, "Porky" Davis, Fern Renaud, "Chic" Chaulk, Dave Gauvin, Jack McQuillan, Tommy Mel, Val Bertulli, Everett Blackwell, Lou Deluca, supervisor. Absent; Rolly Spencer, Ray Denomme.



Russ Empie's work crew on the 2,600 foot level of Garson mine have quite the safety streak going for them. They have worked over one year, or approximately 45,000 hours without medical aid dressings or injuries. According to the employees, the key to such an impressive record is "common sense." Front, from left, are, Frank McDonald, Dave Fram, Rheal Ducharme, Rich Vaillancourt, Don Prudhomme, Claude Hurtubiese, Ken Spencer. Back, from left, Andy Colville, Yvon Dalcourt, Gerry Shephard, Kevin Dwyer, Dan Zadow, Hubert Roy, Louis Trapasso, Floyd Waking, Jules St. Aubin, Ed Jeanveau, Bill Szkalej, Willard Hein, Henry Antonowiz, Cecil Munroe, Horace Fram, and mine foreman Russ Empie.



Safety is a company-wide concern that calls on each department to use every available resource to improve its record. With this in mind, transportation department officials invited its pensioners to contribute to a safety seminar on November 14 at the Copper Cliff Club. The object of the meeting was to draw on the wealth of experience and knowledge each of the pensioners had to offer on matters relating to safety in the workplace. Twenty pensioners attended, some, like **Willis McAdam**, have been on pension for as long as 16 years. Here, some of the pensioners listen to a company presentation on safety.



The first graduates of the central utilities apprenticeship program received their certificates recently. The diplomas, issued by the apprenticeship branch of the Ministry of Colleges and Universities, acknowledge the successful fulfillment of work experience and school requirements. The men spent nine weeks on a course in Orangeville run by the Association of Municipal Electrical Utilities. John Lemay, centre, manager of central utilities, congratulated the new graduates. They are, from left, Allan Becks, Ron Pagan, Wally Taylor, Jay Connors and Dave Sinclair.



Irenee Bastlen, a motorman at Levack mine, has been working at Inco for 33 years. It's a busy household for Irenee and his wife Georgette with their seven children, back row, from left; Michel, 30, Laurent, 17, Jules, 21, Lorraine, 16; front row, from left, Pauline, 24, Lise, 22, and Irene, 29. On the weekends, Irenee and Georgette travel to Manitoulin Island to their cottage which they plan to convert into their retirement home. There they enjoy cutting wood for the wood stove and making maple syrup for family and friends. Irenee likes to fish on the island, When not looking after the household, Georgette knits for her children and grandchildren. It keeps her very busy, Georgette says, but she does enjoy it.

Family Album

Jim Suess, a 16 year veteran of the Port Colborne nickel refinery, is a second class machinist in the maintenance department. In his spare time he likes operating his C.B. radio and enjoys hunting and fishing. His wife Olivia works part time as an R.N.A. at the Port Colborne General Hospital. She enjoys trying different sports in her spare time and has done everything from tennis to sky diving. Six year old Sarah is a kindergarten student at St. John Bosco School and she likes playing with her brother Brian who is 2 years old.



Leland (Spanky) Desjardins, a 25 year veteran at Inco, works at Creighton three shaft as a scooptram operator. When this photo was taken. Spanky and his wife Johanna were celebrating their 25th wedding anniversary with sons, back row from left. Mike, 23, Bill, 24, Mark, 20, Kenny, 18, and Todd, 17 (seated). In the summer, Spanky and Johanna, along with their sons, some of whom are married with children of their own, head for the cottage situated on Lake Agnew where they enjoy fishing, boating and swimming. In the autumn, Spanky goes hunting in the Lake Agnew area while Johanna begins a season of bowing The Desjardins family also enjoys the cottage area in the winter when they bundle up to do some snowmobiling.

Inco "professors" bring practi Laurentian's engineering pro

The establishment of a full fledged mining and mineral processing engineering degree course at Laurentian University is a dream which is rapidly approaching realization. Following a long established tradition of support, Inco has helped Laurentian in this endeavour not only with considerable funding but also by providing the school with some of its knowledgeable personnel to act as part-time instructors.

Presently seven company employees are instructors at Laurentian University. They are: Peter Todd, superintendent of maintenance at the Copper Cliff nickel refinery: Jan van Cruyningen, co-ordinator of project concepts engineering; Bill Kipkie, superintendent of process technology at matte processing; Alan Church, superintendent of technical services for process technology; Menno Friesen, superintendent of the Clarabelle open pit; Peter Souter, manager of industrial engineering; John Bozic, supervisor of the analytical services laboratory at process technology. All except John Bozic, who teaches a course in the chemistry department, are instructors in the engineering school.

The "dean" of Inco's "professors" is Peter Todd. He is in his eighth year of teaching at Laurentian University. Peter gives a course in mechanical engineering and design to second year students. "It's a joy to teach," he states. "It's good to see a guy learning."

According to Peter, his class of eight students learn basically the "ABC's" of engineering. Besides an emphasis on the practical side of the discipline, his teaching methodology includes taking students on tours of company plants. "We tour the operations to show them the type of work they could be doing in the future," explains Peter.

Being a part-time professor has some advantages beyond the simple joy of teaching. It gives him a chance to mingle with younger people. He says: "It gives me a contact with the younger generation I wouldn't normally have."

Peter Souter made his professorial debut this autumn and he calls the experience "fascinating." He had the task of giving a class of ten, fourth year engineering students insights into the wide-ranging world of industrial engineering. Having helped to establish Inco's industrial engineering department a decade ago, Peter is able to draw on his considerable experience when teaching.

He explains his approach to instructing in this manner: "You go in on the assumption that the class knows nothing about Industrial Engineering and get them to understand new concepts and ideas." One of the problems, he adds, is adequately explaining industrial engineering and how it relates to the mining industry in the relatively short time frame of a one term course. Peter has augmented his lectures with guest lecturers from Inco's industrial engineering department.

Peter is something of a man for all



Using the blackboard, Jan van Cruyningen, coordinator of project concepts engineering, illustrates one aspect of magnetic separation.



Peter Toda, superintendent of maintenance at the Copper Cliff nickel retinery, goes over the basics of mechanical engineering and design for his class of second year students.

cal touch to gram

seasons at Laurentian University. In addition to being a professor he is also a student taking a post-graduate diploma in business administration. Moreover, Peter is a member of the board of directors of Thorneloe College.

Jan van Cruyningen is another novice to the ranks of Laurentian's teaching staff. He too enjoys the instructor's role, giving a course in mineral processing to nine, fourth year students. Jan's young charges are enlightened to every aspect of mineral processing excluding flotation, which is taught by Bill Kipkie in the second term.

Teaching is not a matter of standing in front of a group of people and speaking "off-the-cuff" on a particular subject. It involves a lot of preparation. Jan says that for every hour of lecture he had to do two to three hours of preparatory work.

Occasionally he brings in guest lecturers like Ralph Shore, superintendent of Frood-Stobie mill, Charlie Lush, superintendent of Clarabelle mill, and Martin Puro, superintendent of Copper Cliff mill, to give students a greater idea of mineral processing at Inco. The accent, as with other company instructors, is on the practical side of things.

Dr. Doug Goldsack, dean of the faculty of science and engineering at Laurentian University, thinks the availability of this sort of expertise has gone a long way in solidifying a young and growing engineering program. He cites a lack of qualified personnel. a problem which pervades the Canadian university community, as a factor mitigating against the growth of Laurentian's four year engineering program. "There is a big shortage in the engineering and scientific field, particularly at the post graduate level," Dr. Goldsack commented, adding that the university is slowly but surely filling its staff requirments. "Without local engineers we wouldn't have made a run of it."

Goldsack sees not only the university benefiting from the work of Inco's part-time professors but also the students, the teachers and the company.

Students gain from the many years of practical experience each of the instructors possess in their particular field. "They're given the practical touch," he states, "which is really desirable for the engineering student."

The classroom situation, Dr. Goldsack says, gives a huge corporation a face and provides professors with some insights into future generations of engineers. "It gives them (students) the opportunity to see the human side of Inco," he elaborates. "Inco people get a chance to look at the development of some brilliant students." Some of them may end up working for Inco after graduation.

Other Inco people involved with Laurentian University are: Peter Ryan, manager of Copper Cliff nickel refinery, and Milt Jowsey, assistant vice-president of mining and milling. They sit on the advisory committee to the engineering school. Dr. Norman H. Wadge, a retired Incoite, is acting director of the school of engineering.

Even though the engineering program is firming nicely into its full four year status with the acquisition of a permanent staff, Dr. Goldsack feels the part-time professors from Inco are too valuable a resource to deny Laurentian students. He hopes to see them continue their excellent work at the university. After their teaching experiences, the part-time professors express a similar sentiment.



Peter Souter, manager of industrial engineering, explains some concepts of industrial engineering to Laurentian students.

Norma Darrach: one of a rare



Norma makes use of the medical library in the occupational health department at the Copper Cliff Clinic

She is one of approximately 50 in Canada — the only one in the Sudbury Region — and the only one in the Ontario division of Inco Metals. Norma Darrach of Inco Metals' occupational health department is one of the very few in Canada to hold a certified occupational health licence from the American Board of Occupational Health Nurses, Inc. There are no occupational health organizations in Canada that grant such licences.

Norma, a nurse with Inco Metals for 30 years, blushes when she talks of her latest accomplishment. Then the familiar smile appears and you can sense how proud she really is.

Becoming an occupational health nurse required hours of practical learning, studying, attending courses and conferences and finally sitting down to write an eight hour exam. The perseverance paid off.

"I thought it was time to get into a different type of nursing," Norma explained. "I wanted to pursue my career and further my education in nursing. You never stop learning in this type of work."

As an occupational health nurse, Norma is actively involved in maintaining the best possible health standards in the industrial workplace. "It's a preventative type of nursing that I am concerned with," she said. "We must meet the health needs in our industry as well as keep abreast with changes in occupational health standards set up by the provincial government."

No two days are alike for Norma, since she, along with Dr. Walter Woychuk, medical director of the Ontario division, are involved in organizing and conducting the many health projects at Inco Metals.

The health surveillance programs include modified work and rehabilitation, most of which is carried on at Inco's modified work centre, pre-employment examinations and statutory medical

breed



At the FBR shipping area in the matte processing department, Norma interviews Fern Gravel a forklift operator, for a medical survey.

examinations for skilled employees. such as hoistmen, crane operators and mine rescue personnel.

Special examinations and surveys for inorganic lead, inorganic mercury, noise, asbestos, nickel carbonyl, selenium, tellurium as well as lung function, are conducted under the guidance of the occupational health team.

In addition, Norma is responsible for looking after the sputum cytology program. "Norma is doing a tremendous job of conducting the sputum cytology program," said Dr. Woychuk. "She knows the employees and pensioners so well that they feel comfortable communicating with her."

"There's much correspondence. such as referrals and auditing of charts to do." Norma added.

But the job doesn't end there. Other duties: contacting employees in their work areas or at her office to personally discuss test results. assessing post-operative patients/employees to determine if they're ready for rehabilitation. visiting the first-aid departments at



the mines and plants to discuss any problems and, as Norma puts it. "to keep the communication lines open."

It sounds like a tiring job, but it isn't for Norma. "I enjoy the challenge the job presents. It gives me the opportunity to get out to meet many people. I try to impart any knowledge I may have to help

employees better themselves," she said. "I get a sense of satisfaction if I can do that.

"I'm also pleased with the coopertion shown by management. union, health professionals and the social support systems in the community," Norma added ... "It makes my work easier."

Flowers and fantasies at Inco greenhouse



Hundreds of school children visited the Christmas greenhouse display on special school tours during the Christmas season.



Roll 'emi! Members of the agricultural department were in front of the camera as part of a Christmas program for cable television. In the background, they are, from left; Alex Gray, interviewer Grace Rumball, Bruce Forsyth, Holly Dopson, Sharon Laing and Danielle Brunet. In the foreground are members of the TV production crew.

Thousands of people took a short but glorious vacation this past Christmas season. They didn't have to go very far, just to School Lane in Copper Cliff where Inco's 7th annual Christmas greenhouse display was open for viewing from December 5 to January 4.

From the squeaky cold snow and whining wind, visitors stepped into a warm and tranquil world of flowers, greenery and graphic displays. The chirping of birds and the bubbling of water fountains quickly made them forget their winter woes.

The theme of the Christmas greenhouse display was a Fantasy Christmas. "It was the first year in the history of the Christmas greenhouse displays that we used graphics and put a name to them to suit the theme." explained Alex Gray. Inco Metals' gardener.

Fantasy Christmas was geared to the family, according to Holly Dopson and Bruce Forsyth, members of the agricultural department who were responsible for the design and construction of the main Christmas displays in the greenhouse. "Since 1980 was designated the 'Year of the Family', we thought it would be appropriate to make displays for the family, the children as well as the parents," explained Holly.

The graphic displays included Santa's Workshop, Snoopy, Future Christmas, Charlie Brown and Linus, Flintstone Christmas, and a Winter Wonderland consisting of a snowman and skaters on a rink which were located in the centre of the greenhouse.

Work on the greenhouse displays began in early November. Design ideas were developed into graphics which were then scaled to a certain size so as not to overpower the plants in the greenhouse. It was the first time Holly and Bruce had worked on Christmas displays of that size. "It was a challenge getting everything to scale," Bruce added.

The displays, made of plywood and painted with acrylic, had to be coated with varnish to prevent fading and warping due to plant watering and moisture in the air.

"We're pleased with the work considering the amount of time we had," said Bruce. "Once we got started, the ideas just kept coming."

"We had to make some compromises, but it was all worth it in the end," Holly added. "Two heads were certainly better than one in this case. Next year we'll have to outdo this Christmas greenhouse display." We can hardly wait

We can hardly wait.



Alex Gray, Inco's gardener, describes drawings for the cable television program. The sketches of plants were drawn by Marymount College students.



Holly Dopson adjusts the star above Snoopy's house.



Bruce Forsyth, a member of the agricultural department, along with Holly Dopson, were responsible for the design and construction of the Christmas display. Here, Bruce hangs a bulb on Charlie Brown's Christmas tree.



It was 30 years ago this month that a new Inco townsite between Copper Cliff and Creighton was christened Lively in honour of Charlie Lively, an Inco veteran of 35 years.

Born in 1887 at Rowdin, Nova Scotia, Lively began mining at an early age in a nearby antimony mine. Working in various mining areas of North America he established a reputation as an excellent organizer of work and men.

Lively came to Creighton in 1915 when he started for the company as a stope boss underground. A mere five months later he was promoted to shift boss. He worked his way up through the ranks until he made superintendent at Levack.

Ever the innovator, Lively was the

first to eliminate hand mucking of the first cut in the big shrinkage stopes by leaving a portion in the centre of the stope which established a gravity flow of muck to the box-holes on either side and which came down later with the stope floor.

Lively was also something of a character who expressed anger and frustration in his own little way. Reported the January Triangle of 1951:

"In the old days when things went wrong, Charlie would blow off steam by throwing his hat on the floor and jumping on it. The introduction of the hard hat robbed the mining world of one of the best hat-jumpers in the business, but he has made ample contribution to offset this loss."



This photo from the April 1947 Triangle shows Charlie Lively seated, then superintendent of Levack mine, planning an underground development with mine foreman Casey Jones. If was 30 years ago this month that the new Inco townsite between Copper Cliff and Creighton was named Lively in Charlie's honor.

Announcing the name of the new townsite, the then vice-president of the company, R.L. Beattie, said the selection was made as a compliment to superintendent Lively and also as a tribute to the hundreds of men who, like him, have given long and faithful service toward making Inco what it is today.

Added the Triangle: "If the new townsite inherits the qualities of the man whose name it bears, it will always be busy and on its toes."

Other January events: January, 1956

Distinguished British artist Terrence Cuneo was adding the final strokes to paintings of Inco operations in Canada and the United States. Not only had he previously done paintings of Mond plants in the British Isles, but Cuneo also had been commissioned by the lord-lieutenants of the counties to depict the coronation of Queen Elizabeth II at Westminster Abbey. January, 1961

Inco announced it would, for the third successive year, launch a campaign to acquaint North American consumers with the availability of stainless steel housewares and appliances. Hoping to secure the long-range development of markets for nickel-bearing consumer products, the company gained the co-operation of the T. Eaton Company and Atlas Steel Ltd., the largest producer of stainless steel. At the time stainless steel was the largest single market for nickel.

January, 1972

The familiar metal badge that carried employees' identification and payroll number was passing into extinction. It was being replaced by a new personalized identification card that bore a photograph of the worker.