

1815 UNIVERSITY AVENUE MADISON, WISCONSIN 53706 608-262-1705

### GEOLOGICAL AND NATURAL HISTORY SURVEY

M. E. Ostrom Director & State Geologist

February, 1981

#### UPDATE ON MINING IN WISCONSIN

The enclosed is a review of activities regarding metallic mining in Wisconsin over the past several months. We hope you find this review useful and informative. Please let us know if you have any comments or questions on the articles or topics included.

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This major potential mine/mill development remains the focus of public attention. Recent events are reviewed.

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#### LONG TERM LIABILITY OF MINING COMPANIES

This new law addresses the liability of metallic mining operations with respect to damages claimed by person(s) as a result of mining-related injuries.

# JACKSON COUNTY IRON COMPANY PERMIT HEARING

Wisconsin's only active metal mine was the subject of a two-day contested-case hearing on its mine permit application.

#### WATER QUALITY PROBLEMS NEAR SHULLSBURG

Groundwater impacts, apparently related to mine shut-down have been investigated by Lafayette County and state officials.

# URANIUM EXPLORATION ISSUES

The review of uranium exploration safety issues has been continuing with new legislation becoming a possibility.

#### STATUS OF MINING RULES

Four new or revised rules affecting metallic mining have been approved for public hearings by the Natural Resources Board.

Thomas J. Evans
Mineral Resources/Mining Information
Geological and Natural History Survey
1815 University Avenue
Madison, WI 53706
(608) 263-4125

Duncan A. Harkin
Extension Specialist, Natural
Resource Economics
Room 308, Agricultural Hall
1450 Linden Drive
Madison, WI 53706
(608) 263-9494

# ACTIVITIES OF THE MINING INVESTMENT AND LOCAL IMPACT FUND BOARD

Local governments in north central, northwestern, and south-western Wisconsin will receive up to \$237,686, during 1981, to alleviate a variety of impacts associated with metallic mineral development. The source of these funds is the Mining Investment and Local Impact Fund Board, created in 1977 by the Wisconsin State Legislature. Currently serving on the Board are:

- --Laurence Lewis, Chairman public member, City of Hurley, Iron County;
- --Gwinn Johnson, Vice-Chairman local official member, Mayor of Crandon, Forest County;
- --Roger Utnehmer, Secretary public member, City of Antigo, Langlade County;
- --Fred Feller local official member, Chairman of the Town of Enterprise, Oneida County;
- --Richard Galstad school board member, President of the Osseo-Fairchild School Board, Trempealeau County
- --Marvin Hanson county official member, Chairman of the Rusk County Board;
- --Erhard Huettl county official member, Chairman of the Forest County Board;
- --Chandler McKelvey Secretary, Wisconsin Department of Development;
- --Mark Musolf Secretary, Wisconsin Department of Revenue.

The Mining Impact Board is responsible for the annual disbursement of up to 60% of any net proceeds tax revenues collected in the state; in the absence of such mining revenue, the Board draws primarily on a \$2 million general fund loan in order to carry out its funding program.

The \$237,686 in awards were approved by the Mining Impact Board on September 30, 1980. Over the course of 1981, these monies will be distributed in the following manner:

Loc.	Grant Recipient	Grant Description	Amount
Wisconsin	Towns of Ashland and Lincoln; Towns of Bass Lake, Stone Lake and Frog Creek; Sawyer County; Lac Courte Oreilles Tribe; Town of Doyle.	Regional mining education committee.	\$ 3,000
west	City of Ladysmith	Comprehensive planning	\$11,250
Northwest	Town of Grant	Legal counsel; local impact committee	\$17,000

Loc.	Grant Recipient City of Montreal	Grant Description Fencing of a caved-in area; mine building	Amount \$15,000
	City of Hurley	demolition  Comprehensive planning	\$11,250
North Central Wisconsin	Forest, Langlade, Oneida and Vilas Counties	Area-wide impact com- mittee; planning assistance; environ- mental and technical work	\$37,150
	City of Rhinelander	Comprehensive plan implementation; local impact committee	\$14,000
	City of Crandon	Local impact commit- tees; City Attorney assistance	\$ 3,000
	Forest County Potawatomi Community	Legal counsel	\$15,000
	Sokaogon Chippewa Community	Legal counsel; travel	\$15,309
	Town of Lincoln	Legal counsel; tech- nical consultant services; local impact committee	\$20,000
	Town of Nashville	Legal counsel; local impact committee; town building	\$21,973
	Forest County	Corporation counsel; technical consultant services; local impact committees; social services	\$22,979
	City of Antigo	Comprehensive plan update; local impact committee	\$11,375
	Town of Elcho	Local impact commit- tee; legal and plan- ning assistance on zoning and industrial development	\$ 7,400
	Menominee Indian Tribe and Menominee County	Local impact committee	\$ 1,500

Loc.	Grant Recipient	Grant Description	Amount
SW Wis.	City of Mineral Point	Reclamation Plan	\$ 8,500
	City of Shullsburg	Local impact committee	\$ 2,000
	То	tal Funds Committed	\$237,686

These funding decisions represent several new policy positions taken by the Mining Impact Board, in response to receipt this year of funding requests totalling \$335,000. For example, the Board determined that mining impact grants for 1981 legal and planning services were justifiable in communities (1) where a specific mine proposal is being developed (i.e., Exxon's Crandon Project and Kennecott's Flambeau Project), or (2) where a mining operation has terminated (i.e., the iron mines in Iron County). The Board further determined that funding for 1981 legal and planning services could not be justified, at this time, in communities (1) where a mineral deposit exists without obvious mining company plans to develop it (i.e., the iron-titaniumvanadium deposit in Sawyer County), or (2) where mineral preexploration or exploration is occurring without any deposit discovery announcement (i.e., uranium-related activity in several northern Wisconsin counties). As a result of such 1980-81 Mining Impact Board funding policies, many grant applicants were awarded fewer dollars than they had requested. A few communities have expressed strong objection to both the substance of the policies and the manner in which they were adopted. These aggrieved applicants are expected to utilize the Board's appeal mechanism, whereby a particular funding decision may be reconsidered by the Board if new and relevant information regarding the funding request can be provided.

# Emergency Grant Applications

On December 5, 1980, the Board heard two emergency grant requests. The Forest County Potowatomi Community was granted \$2,500 to cover legal services, but the Potowatami local impact committee was denied its further request for \$1,000 in travel expenses for the remainder of the year. A second emergency application dealt with the adverse impacts in groundwater from the October, 1979 shutdown of Eagle-Picher's mine complex south of Shullsburg. Ten thousand two hundred dollars of the request was granted by the Board to initiate monitoring of new and surrounding water wells, but a request for \$82,500 to cover the cost of drilling nine new wells was deferred. Legal questions surrounding the expenditure of Impact Board funds for replacement of damaged private water supplies were raised and an Attorney General's opinion, requested by the Board chairman, was already being sought to aid in deciding these questions.

The law attributes responsibility for mine-related damages to the parent company of the mining firm, and states that this responsibility will not be changed by subsequent reorganization or liquidation of the mining firm. Thus, if a conglomerate bought-out a mining firm it would acquire both the assets of that firm and its Wisconsin liability for all subsequent damages. In another kind of situation, if land containing mine wastes reverted to individual ownership (such as by a farmer or recreational landowner) the individual owner would not take on the liability for any damages which might later result from the mine wastes. The mining firm which created the wastes, or its succeeding organization, would continue to be liable. Claims for mine-related damages must be filed within three years of the time that the damages are first discovered or could reasonably have become apparent.

As is usually the case when regulatory standards are increased, prior existing activities get some exemption. In the case of mining operations which were closed before the effective date of the legislation (May 21, 1980), the law does not apply. if damages occurred, they would be adjudicated under prior law (part of which is that negligence would have to be shown). Whether liability would be attributable to a parent company for operations of a subsidiary would probably have to be determined by a court case. In mining operations which were closed prior to the new law, but are subsequently reopened, the new operations would come under the new law. For operations that are active on the date of the law (Jackson County Iron Company at Black River Falls), a claimant for damages may apply to the mine damage fund under either of two conditions: (1) if all other remedies have been exhausted, or (2) if the person chooses a claim against the fund as their only remedy. If the State makes an award for damages, it cannot then recover the amount by action against the mining company (as it may in cases of operations which begin after the effective date of the law).

# JACKSON COUNTY IRON COMPANY PERMIT HEARING

On January 6 and 7, 1981 the State of Wisconsin Division of Natural Resources Hearings held a contested-case hearing on a permit application from Jackson County Iron Company to continue mining operations at its Black River Falls Mine. The mine permit application, including a mining and reclamation plan, had been submitted to the Department of Natural Resources along with a permit application for a seepage collection pond for treatment and control of water discharged from the mine.

The Black River Falls Mine is an open-pit taconite (low-grade iron ore) operation producing about 800,000 tons of taconite pellets annually for shipment by rail to Inland Steel Company's steel-making operation near Chicago. Jackson County Iron Company is a wholly-owned subsidiary of Inland Steel Company. The mine

initially began production in 1969 and, when the metallic mine reclamation act was passed in 1974 and amended in 1978, the mine became subject to obtaining a mining permit under ss. 144.80-144.94, Stats.

Information on the mine/mill operation noted in the course of the permit hearings include:

- 1. The open pit covers about 140 acres and is currently 300 feet deep, 4,000 feet long, and 2,000 feet wide. When fully developed, the pit will be 730 feet deep.
- 2. The mine currently produces 7,000 tons of ore per day, 16,000 tons of waste rock per day, and 2 tons of tailings are generated for every 1 ton of taconite pellets.
- 3. Over the next 10 years (the estimated life of the mine), production will average 855,000 tons of pellets per year.
- 4. State taxes to be paid by JCIC over the next ten years are expected to be over \$1.2 million annually, including \$500,000 per year in net proceeds taxes.
- 5. All waste rock dumps, the settling pond complex, tailings basin, and other elements of the mine/mill complex will be reclaimed with the pit allowed to fill naturally with water. Final reclamation is expected by 1995 following mine shut-down in 1990. Cost of reclamation is expected to be \$1.7 million (1980 dollars).

A decision on the mine permit application is expected in the near future following the determination by the hearing examiner. The department had previously prepared an environmental impact assessment screening worksheet and, based on that assessment, ruled that an environmental impact statement for this operating mine was not necessary.

# WATER QUALITY PROBLEMS NEAR SHULLSBURG

Private water supplies south and west of Shullsburg (Lafayette County) were recently tested by the Department of Natural Resources in response to owners' concerns about water quality. Analyses indicated that nine water supplies were undesirable for human consumption due to extremely high concentrations of sulfate. Sulfate in excess of 3,000 milligrams per liter was measured in some wells (250 mg/l is the secondary drinking water standard, which is an aesthetic standard and not a human health standard). Elevated sulfate levels in water apparently causes diarrhetic response in humans. Cattle, too, refuse to drink water of this character, which subsequently can result in loss of milk production unless a supplemental source of water can be found.

## LONG TERM LIABILITY OF MINING COMPANIES

Chapter 353, Laws of 1979, signed by the Governor on May 21, 1980, has modified the conditions of liability for metallic mining firms which were formerly set by the general laws on liability for damages. The new law makes several important changes, but the most important seem to be the application of the strict liability principle which does not require the person damaged to show that the mining firm had been negligent, the application of responsibility for damages to the parent company regardless of changes in corporate organization, and a new "statute of limitations" which recognizes that problems from mining may not become apparent for some years after the mining activity has ceased. The time limit for filing for damages (three years) begins when the damages are actually discovered or should have been discovered.

The new liability law applies only to metallic mining and thus excludes sand, gravel, and stone operations. In its application to metallic mining it includes all phases from prospecting (sometimes called "bulk sampling") through mining, concentrating, and including smelting and refining. The kinds of damages contemplated in the law include personal injury, environmental damages, and psychological damages such as mental anguish, and pain and suffering. These psychological damages are called "nonpecuniary damages" in the law. The law excludes punitive damages.

A person who is damaged by a mining operation may make his/her claim against the State. If an award is made, the State may then take action against the mining company to recover the amount of the damages. Alternatively, the claimant may take action through the courts directly against the mining company. The law sets up a fund for the payment of those claims which are brought to the State. The fund is made up of an initial appropriation of \$500,000, and 4 percent of all revenues from the net proceeds mining tax. (Ten percent of the portion of the net proceeds tax which goes to the State's general fund is allocated to the mining damage fund.) The Department of Industry, Labor, and Human Relations is the agency which administers the fund and receives claims against the fund for damages due to minerelated activities. DILHR is currently in the process of drafting rules to implement this fund.

A person claiming that damages have resulted from a mining operation needs only to show by a preponderance of evidence that the damages were in fact caused by the mining operation. There is no need to show that the mining firm had been negligent in its operations and that such negligence caused the damages. The showing of cause without negligence is the concept of "strict liability". However, Wisconsin's doctrine of contributory negligence does operate in mine-related damage cases. If the damages occurred in part because of negligence of the person damaged, the amount by which such contributory negligence contributed to the amount of the total damages may be deducted from the damages.

Eight of the nine wells are located close to the underground workings of the Eagle-Picher Industries zinc-lead mine known as the Shullsburg mine. The ninth well occurs near the Bearhole mine west of the village of Shullsburg. The Shullsburg mine was shutdown in October 1979, thus ending the pumping of water entering the mine workings. This allowed for gradual filling of the mine and nearby rock strata with water in those areas formerly dewatered as a result of the pumping necessary to keep the onceactive mines dry. The Bearhole mine had closed in 1978.

Funding to assist landowners in securing new water supplies by drilling new wells to uncontaminated water sources has been sought by the Lafayette County Board of Supervisors. Funding for continued sampling and analysis has been granted by the Mining Investment and Local Impact Fund Board. The request for additional dollars to reimburse costs for new wells is being held for future consideration by the Board pending an Attorney General's opinion on the acceptability of using impact funds for private relief sought through a local governmental body.

# URANIUM EXPLORATION ISSUES

The Subcommittee on Uranium Exploration Safety chaired by Sen. Tim Cullen, a subcommittee of the Legislative Council Mining Committee also chaired by Sen. Cullen, has continued its effort to assess the radiological impact, if any, of drilling for uranium in Wisconsin. The Subcommittee's focus has been on monitoring current uranium exploration using a program prepared by the Radiation Protection Section of the Department of Health and Social Services. To date, two holes have been monitored with data still being collected and analyzed at this time. These two holes were drilled in southern Florence County on county forest lands by Kerr-McGee Resources Corporation. No uranium ore was struck in these two holes, so the monitoring was inconclusive as to the potential hazards of drilling in uranium but the process did indicate the reliability of the monitoring equipment. uranium drilling has occurred in Wisconsin since last Spring, in part due to completion of exploration programs and in part in response to Sen. Cullen's call last summer for a voluntary moratorium.

The Subcommittee has recently passed two resolutions expressing (1) their desire that no uranium exploration continue in Wisconsin unless monitored in cooperation with DHSS and until the safety of such activity can be assessed, and (2) that technical and financial issues surrounding state or industry monitoring programs be addressed. On January 9, 1981, the Subcommittee informally affirmed its interest in monitoring exploration drill-holes in known uranium orebodies existing outside of Wisconsin. At a recent meeting at Nicolet College, Sen. Cullen expressed his continuing interest in the uranium issues and their priority with other mining-related concerns such as mine tax revision, severed mineral rights, and geologic information legislation.

The upcoming session of the state legislature will probably include consideration of legislation concerning uranium exploration and mining. SB23, calling for a moratorium on uranium mining for 7 years, has already been introduced in the Senate. Action on this and other possible legislation will be the focus of uranium interests for the next several months.

# STATUS OF MINING RULES

Four sets of rules affecting mining in Wisconsin will be the subject of public hearings in the Spring of this year. Proposed revisions to NR 131 (Prospecting) and NR 132 (Mining) are closely related to the proposed rule on mine waste disposal, NR 182. The latter new rule was mandated by the Legislature in Chapter 377, Laws of 1977 (passed in May, 1978) and was approved for public hearing by the Department of Natural Resources in October 1980. It is a comprehensive rule covering construction and design of waste-disposal facilities, location criteria, operational considerations, and closure and long-term care considerations.

NR 105, the department's groundwater protection strategy, is tied into NR 182 and has been the object of strong opposition by industry and environmental groups active in drafting an alternative groundwater protection strategy specifically for the mine-waste disposal rule. NR 105 is a comprehensive rule, that would in its present form be applied to all facilities and activities under departmental authority, including mining.

Informational meetings on NR 105 have been scheduled by the Department of Natural Resources, including February 23rd in Ladysmith, February 24th in Rhinelander, February 27th in Dodgeville, and March 6th in Madison, among others. Formal public hearings on NR 131, NR 132, and NR 182 will probably be scheduled for late Spring (April or May).