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DEPARTMENT OF JUSTICE

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November 10, 2009

Mr. Glenn M. Stoddard
Attorney at Law
130 South Barstow Street
Eau Claire, Wisconsin 54701

Re: Notice of Intent to File Citizen Suit under Wis. Stat. § 293.89 – Flambeau Mine

Dear Mr. Stoddard:

By letter dated June 16, 2009, you served the Wisconsin Department of Natural Resources (DNR) and Flambeau Mining Company (FMC) by certified mail on behalf of your clients, Wisconsin Resources Protection Council, Mr. Al Gedicks and Ms. Laura Furtman, a Notice of Intent to File Citizen Suit (NOI) under Wis. Stat. § 293.89 relating to the FMC mine near Ladysmith, Wisconsin. The NOI raises issues concerning the DNR's regulation of the mine site.

Since the filing of the NOI, you and I informally discussed the prospect of having discussions between you, your clients and your experts, and the DNR and its legal representatives concerning the issues raised in the NOI. As a consequence, a meeting was arranged and had on September 16, 2009, at the DNR offices in Eau Claire at which you, your client Laura Furtman, and your expert David Chambers met with me, DNR attorney Dan Graff, DNR Hydrogeologists Phil Fauble and Terry Koehn and DNR Upper Chippewa Watershed Team Leader Tom Aartila. We appreciate your willingness to continue discussions. The DNR continues to believe such discussions are constructive and could offer the potential for crystallizing and resolving the issues and concerns raised in the NOI, and with the hope and intent to avoid litigation.

Following our meeting, you asked that DNR commit to writing a summary of certain factual information concerning matters on which we appear to be in agreement or common understanding. I have checked with the DNR and can report the agency's position on those issues as follows.

First, you ask that DNR acknowledge certain information about discharges from the biofilter into Stream C and Stream C's water monitored quality. These facts are already a matter

of public record and are acknowledged readily. For example, enclosed is the January 20, 2005, submission by FMC to the DNR providing information on 2004 data Stream C monitoring data, which FMC and DNR acknowledge are "elevated copper levels." Also enclosed are excerpts from the January 2009 Flambeau 2008 Annual Report at pages 7-10, its Appendix B at B5, and Appendix B Attachment 3 (B-161 to B-169), relating to continued monitoring of Stream C, an occasionally navigable yet intermittently flowing stream. In addition, enclosed is a table prepared by Phil Fauble and shared with you at our September 16th meeting entitled, "Copper Concentrations in Stream C and the Biofilter" that shows monitoring data on dates from September 16, 2004 through April 25, 2009. DNR recognizes that in-stream copper concentrations in Stream C samples often exceed the acute water quality criterion level under the indicated hardness conditions. DNR also recognizes that Stream C samples have copper concentrations that would exceed the chronic water quality criterion under indicated hardness, although the samples were not an average of four consecutive daily samples that DNR uses to establish chronic toxicity under USEPA guidance. However, DNR also notes that the occurrence of in-stream copper concentrations above water quality criterion is not by itself a requirement for a WPDES permit or a violation of Wis. Stat. ch. 283 per se – especially in light of the regulatory requirements for outflow from the biofilter, as discussed below.

Second, you ask how DNR is regulating and plans to address discharges from the biofilter to Stream C in the context of applicable regulations. As you know, the biofilter was converted from the surge pond to manage storm water from a portion of the mine site in response to FMC's January 8, 1998, notice of proposed modification to the reclamation plan for the mine. Submitted with that application was "Appendix B, Surface Water Analysis, Flambeau Mine Reclamation, Ladysmith, Wisconsin" (copy enclosed). The last page of the selected pages from Appendix B describes the purpose of the biofilter to be converted from the surge pond. The proposed modifications were approved by DNR with conditions in its July 30, 1998, letter, including Findings of Fact, Conclusions of Law, and Mining Permit Modification. In the enclosed March 20, 1998, letter from DNR to FMC, DNR sought "to clarify how the department intends to regulate surface water management at the site." After closure of the water treatment plant outfalls, the letter states, "stormwater management will fall under the regulatory authority of the Mining Permit and its associated plans."

The enclosed December 13, 2001, letter from DNR to the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) discusses DNR's monitoring of surface water quality, and describes DNR's analysis with respect to both water quality and biota in Stream C at that time. The enclosed October 26, 2004, letter from DNR mining attorney Chuck Hammer to GLIFWC Administrator James Schlender explains DNR's review of discharge data from the biofilter and water quality data from Stream C as it relates to elevated levels of copper monitored, the actions taken to that date, with the pledge to continue monitoring the situation because the DNR was "treating this matter very seriously. . . ." Enclosed are DNR's January 18, 2006, and February 14,

2006, letters to Laura Furtman further explaining its regulatory approach to outflow from the biofilter and water quality monitoring in Stream C.

As DNR expressed to you at our meeting, DNR continues to take this matter seriously and is now exploring voluntary practical alternatives for modifying or ending discharges from the biofilter to Stream C. However, please do not misconstrue our action in this regard. It is still DNR's firm view that while the copper levels in Stream C warrant continued monitoring and review, there is inadequate evidence to show that they currently present a threat to the water quality of the Flambeau River or to biota in intermittent Stream C to justify regulatory action under applicable law, discussed below. But if practical measures can be taken voluntarily to eliminate or significantly reduce copper and other pollutant discharges to Stream C, DNR would welcome them and encourage their undertaking.

You also asked about the regulatory framework in which DNR is acting with respect to storm water management at the mine site. In Wis. Stat. § 283.13(2), requirements to meet numerical effluent limits are established for Wis. Stat. § 283.01(12)(a) point source discharges, but not to § 283.01(12)(b) storm water discharges (which are governed by Wis. Stat. § 283.33). Stormwater discharge from the Flambeau mine site would ordinarily be subject to one of the DNR's Wis. Admin. Code ch. NR 216 storm water permits and requirements and issued pursuant to Wis. Stat. § 283.33. NR 216 stormwater permits do not contain, and are not required to contain water quality-based numerical effluent limitations. Instead, such permits generally contain structural treatment and operational practice requirements, including "best management practices" or "BMPs," as the basis for controlling runoff pollution. *E.g., see* Wis. Admin. Code §§ NR 216.002(1), 216.27-216.29.

Storm water discharges from mine sites are industrial storm water flows that are subject to subchapter II of Wis. Admin. Code ch. NR 216. This subchapter deems stormwater discharges in compliance with the requirements of the storm water permit program and not required to hold a separate storm water permit if that ". . . storm water discharge is in compliance with a department permit or approval which includes storm water control requirements that are at least as stringent as those required under this subchapter."[1] In 1998, the Department sent a letter to FMC when the biofilter was constructed, allowing discharges from the future biofilter to be regulated under the runoff management provisions of FMC's revised mining permit. *See* letter to FMC's Jana Murphy from DNR's Paul Luebke dated September 23, 1998, a copy of which is enclosed.

FMC's mining permit, as amended in 1998, includes measures to meet the requirements of Wis. Stat. § 293.13(2)(c)3. for the "[m]anagement, impoundment or treatment of all

[1] This exemption from the industrial storm water permit requirement is found in current Wis. Admin. Code § NR 216.21(4)(a), which existed from 1994 to 2004 as Wis. Admin. Code § NR 216.21(3)(a).

underground or **surface runoff waters** from open pits or underground prospecting or mining sites so as to prevent . . . pollution of surface or subsurface waters or damage to public health or safety." (Emphasis added.)

Finally you have suggested that a storm water permit with numerical effluent limits be issued to the Flambeau Mine. DNR has the authority to regulate storm water point source discharges from mining sites in order to achieve water quality standards as deemed necessary. In Wis. Admin. Code § NR 216.25(3)(c), this is authorized as follows:

> (3) INDIVIDUAL PERMIT COVERAGE. If it determines that one or more of the following conditions are met, the department **may require** that a storm water discharge be covered by an individual WPDES permit under s. 283.31 or 283.33, Stats.:
>
> . . . .
>
> (c) Effluent limitations or standards are promulgated for a storm water discharge.

(Emphasis added)

There are no effluent limitations or standards for storm water discharges from industrial mining storm water discharge sites, and based on the monitoring data to date, DNR does not believe that the exercise of the authority under Wis. Admin. Code § NR 216.25(3)(c) can be justified. To date the storm water discharges from the Flambeau Mine have met the relevant requirements in the mining permit, so under Wis. Admin. Code § NR 216.21(4)(a), separate storm water permit coverage is not required. However, DNR continues to diligently monitor the situation in case the requirement were to arise.

Third, you ask for a summary of DNR's regulatory approach to the monitoring of groundwater quality at the mine site. The enclosed December 13, 2001, letter from DNR to GLIFWC describes concerns expressed and DNR's analysis of data to that time about groundwater quality monitoring. It acknowledges the high concentrations of metals above predicted levels, but explains, as DNR staff did at our September 16, 2009 meeting, why these concentrations remain not of concern. As pointed out at the meeting, the FMC Mine Permit, as modified, governs actions that may be taken in response to exceedance of groundwater standards. *See* Conclusion of Law # 7 at 86 and Mine Permit Condition ## 8, 9 in Findings of Fact, Conclusions of Law and Mine Permit in Docket No. IH-89-14, Before the State of Wisconsin Division of Hearings and Appeals upon the Application of Flambeau Mining Company for Permits to Build and Operate a Surface Mine in Rusk County, Wisconsin

(January 14, 1991), hereafter "FMC Mine Permit," "Flambeau Mine Permit", "Mine Permit", or "Permit." *See also* May 17, 2000, DNR (Lynch) to FMC (Murphy) letter, enclosed.

FMC Mine Permit Conclusion of Law ¶ 7 at 86 states, "Pursuant to sec. 160.19(12), Stats., and sec. NR 132.17(9), Wis. Adm. Code, all facilities on the mining site shall be subject to the groundwater quality and quantity provisions of Chapter NR 182, Wis. Adm. Code."

Wisconsin Admin. Code ch. NR 182 is entitled, "Metallic Mining Wastes." It would appear at first reading that the applicable standards from Wisconsin's Groundwater Law in ch. NR 140 apply to the Flambeau Mine, as established in Wis. Admin. Code § NR 182.075. However, a closer reading shows that these standards are only applicable to "a mining site regulated under ch. NR 132, **approved after June 1, 1998**, shall comply with ch. NR 140." (Wis. Admin. Code § NR 182.075(1)(a), emphasis added.) Since the Flambeau Mine Permit was issued on January 14, 1991, the groundwater quality standards in Wis. Admin. Code ch. NR 140 cannot be applied. In addition, it should be noted that Wis. Admin. Code § NR 140.03 also explicitly states that, "This chapter does not apply to any facilities, practices or activities on a prospecting site or a mining site because those facilities, practices and activities are subject to the groundwater quality requirements of chs. NR 131, 132 and 182."

The Flambeau Mine is, however, subject to the groundwater and leachate monitoring requirements of Wis. Admin. Code § NR 182.075 in effect at the time of the Mining Permit. The version of this Code in effect in 1991 when the mining permit was issued (copy enclosed) states in Wis. Admin. Code § NR 182.075(1) that:

> The department shall, pursuant to a hearing under s. 144.836, Stats. [now s. 293.43, Stats.], establish the groundwater quality standards that site must meet; establish a compliance boundary for meeting such standards; establish an intervention boundary; and determine the adequacy of the contingency plan relating to achieving such compliance. This "intervention" in accordance with the contingency plan is intended to ensure that appropriate actions are taken by the operator to maintain the required groundwater quality at the compliance boundary.

The baseline groundwater quality standards were established in Condition 9(b) at 90 of the 1991 Mining Permit Approval. The Contingency Plan for evaluating and responding to exceedances of the groundwater quality standards was approved in Condition 9(d) at 93 of the Mining Permit Approval and detailed in Section 8 of the Mining Permit Application. The intervention boundary was established in Condition 9(c) as monitoring well nests MW-1000, 1002, 1004, 1005 and 1010. The Compliance Boundary was set in Condition 9(a) at 89 of the Mining Permit Approval at 1,200 feet from the outer perimeter of the pit/stockpiles, except for property boundary restrictions.

This boundary, however, is modified by the presence of the Flambeau River within 140 feet of the western edge of the backfilled pit. The Mining Permit was approved based on the assertion made in Flambeau's Mining Permit Application submitted in final form on December 29, 1989 (hereafter the "Mining Permit Application") that the Flambeau River serves as a "hydraulic boundary" for any liquids migrating out of the backfilled pit and that the modeling showed that "[w]hile sulfate and manganese are both above the background concentrations and standards" they would not be an issue since "[a] comparison of the projected incremental increases in Flambeau River concentrations to average Flambeau River concentrations shows that the projected incremental increases are so low, that they would not even be detectable in river water . . . ." *See* Mining Permit Application, s. 5.7.1.2, p. 148. This then was the standard that had to be met by the Flambeau Mining Company in regards to protection of the Flambeau River from potential impacts from groundwater seeping from the backfilled pit.

When elevated levels of certain contaminants, including iron and manganese, were detected in monitoring well MW-1000PR in the years just after backfilling of the mine had been completed, FMC was required and did provide an analysis of the results to the Department in accordance with Section 8.1 (p. 207) of the Mining Permit Application. The analysis was in a report completed by Foth & Van Dyke/SRK Consulting titled "Backfilled Pit Water Quality Assessment" dated October 12, 2000, which was attached to an October 17, 2000 letter from FMC to the WDNR's Larry Lynch (copy enclosed). The Department conducted an analysis of the data presented in the Oct. 12, 2000 report and considered comments from a separate analysis submitted by John Coleman of GLIFWC on September 28, 2001. The results of that analysis were contained in a letter from the Department to GLIFWC dated December 13, 2001 (copy enclosed).

Even after including some of the more conservative numbers presented by Mr. Coleman regarding influx of groundwater from the backfilled pit, the Department determined in its December 13, 2001 response that "the analysis demonstrates that the current water quality in the backfilled pit does not pose a threat to the water quality of the Flambeau River." Regardless of the levels of iron and manganese reported in well MW-1000PR, the Department determined that FMC was in compliance with the groundwater quality standards at the compliance boundary and that the influx of backfill water into the Flambeau River would not pose a threat to surface water quality. Therefore, in accordance with the Contingency Plan and Mining Permit, no further remedial actions were justified and no increase in the monitoring program was warranted.

Since that determination in 2001, the Department has continually reviewed groundwater data collected by the site's monitoring system and evaluated it to determine if any changes in conditions warranted an additional response under the terms of the Mining Permit. At this point, we have not detected any changes in the groundwater quality that would make us reconsider the

findings of our 2001 determination. Since most of the focus is on downgradient well MW-1000PR, what follows is our analyses of the groundwater sampling results to date as recorded in the DNR's GEMS database and summarized most recently in Appendix B of the 2008 Annual Report (copy enclosed).

Three events appear to have had significant impact on the groundwater quality in well MW-1000PR: the dewatering of the well during operation of the mine (1993 to 1998), the backfilling of the mine (1997-8), and the recovery of the shallow water table in the backfill pit (since 2005). Once the dewatering of the pit reached below the screened zone of the well, the alkalinity, hardness, iron, manganese, sulfate and conductivity dropped. The copper levels rose dramatically from no-detect to 130 ppb. Once the pit was backfilled and the water level rose to the base of the screened interval, hardness, iron, manganese, sulfate, and conductivity all spiked upward dramatically, while copper dropped sharply back to non-detectable levels. From the highest recorded levels in 1999-2000 (the same time the mine backfill performance was first evaluated), the hardness, manganese, sulfate, and conductivity concentrations have all steadily declined. About the time the shallowest in-pit wells (MW-1013 and MW-1014) began to show recoverable amounts of groundwater in 2005, the level of iron in MW-1000PR plunged from around 7 ppm to below 1 ppm. The level of copper rose slightly from non-detect to 60 ppb before dropping again to below 20 ppb. And the level of arsenic dropped from around 10 ppb to between 1-3 ppb.

Any analysis of these results must be done in light of the fact that, "Well MW-1000PR is screened within a weathered and highly fractured schist with disseminated pyrite . . . ." (October 12, 2000 Memorandum to FMC – Backfilled Pit Water Quality Assessment, p. A-15, attached to the enclosed October 17, 2000 letter from FMC to WDNR's Larry Lynch). It is the department's professional judgment that the pyrite is, in fact, closer to a chalcopyrite (copper-bearing iron sulfide) as that was a very common mineral in the ore body. When the area around the well screen was dewatered, oxygen was introduced into the system and the chalcopyrite began to oxidize. As a result, it released high levels of copper ions into solution around the borehole. When the backfilling reached a level to allow the area around the well screen to resaturate, reduced conditions were reestablished and the copper levels dropped. However, the oxygen that had been introduced continued to influence the geochemistry around the borehole and allowed for elevated levels of iron, arsenic, sulfate and manganese. It appears that there was not a significant influx of water from the mine pit backfill area until the water table had more fully recovered (and a hydraulic head sufficient to counter the inflow of river water had developed). At that time, the influx of more oxygenated water allowed the iron and arsenic levels to drop dramatically while temporarily increasing the copper levels slightly. Much of the interpretation of the contaminant concentrations at well MW-1000PR must be viewed in context that local geochemical changes associated with the oxidation of sulfide ore at the screen of the well are likely far more important than contaminant influx from the backfilled pit.

It was also noted that there were occasional groundwater monitoring standard exceedances for iron and manganese at well MW-1015B located along the compliance boundary north of the backfilled pit again as recorded in the DNR's GEMS database and summarized in Appendix B of the 2008 Annual Report. This well is not within the direct downgradient flow of the backfilled mine pit, but would be considered side-gradient. In accordance with the Mining Permit, the exceedances were evaluated and it was concluded that these periodic exceedances were within the natural background range of fluctuations for these compounds. There does not appear to be any pattern or trend to these exceedances. This is not surprising as it has been noted that, "Iron and manganese concentrations exceed State drinking-water standards in water from many wells in the shallow aquifer system. Extreme local differences in concentration of these elements are common." (*See* **USGS Water-Resources Investigations Report 90-4171, 1995**, *Ground-Water Flow and Quality in Wisconsin's Shallow Aquifer System*, p. 34, partial copy enclosed.)

Exceedances of groundwater standards at the intervention boundary (as defined in Condition 9(c) at 92 of the 1991 Mining Permit) are not the same as exceedances at the compliance boundary. In accordance with Mine Permit Condition 9(b) at 90, the standards apply to exceedances at the compliance boundary. If exceedances occur at the intervention boundary and analyses indicate that a violation of the compliance boundary will occur without intervention, as described in Wis. Admin. Code § NR 182.075(1s) in effect when the Mining Permit was written, intervention is required in accordance with the mine permit contingency plan. That plan is part of the mining application and incorporated in the permit, as referenced in Permit Condition 9(d) at 93. It is the DNR's opinion that the groundwater analytical results have been satisfactorily explained, analyzed and determined not to present a threat to the Flambeau River or the environment. Based on those results, the DNR has also determined that the anomalous results at the intervention boundary will not result in compliance boundary exceedances, and that the requirements of the permit so far have been met.

As explained at our meeting, DNR staff are diligently and critically reviewing all data, reports and analyses submitted to them by FMC and its consultants, with attention to both surface and groundwater quality. We agree that the conditions of the permit and the law must be assiduously followed, including the requirements for DNR to meet the burdens of proof imposed by law to justify additional requirements of the permittee. DNR will not hesitate to exercise that authority if it determines a threat to the environment or violations of the permit or law are presented.

Thank you for your consideration. I hope this provides the information you request. If you have questions or comments, we welcome continuation of this dialogue.

Sincerely,

Thomas J. Dawson
Assistant Attorney General

TJD:drm

Enclosures

c w/encs.: Attorney Dan Graff (DNR)