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INTERNAL REVENUE SERVICE
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OFFICE OF CHIEF COUNSEL

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INTERNAL REVENUE SERVICE NATIONAL OFFICE FIELD SERVICE ADVICE

MEMORANDUM FOR DENNIS M. GALLAGHER
APPEALS OFFICER

FROM: Associate Chief Counsel (Passthroughs and Special Industries)
CC:PSI:7

SUBJECT: Whether "roasting" is incidental to a related mining process.

This Chief Counsel Advice responds to your memorandum, dated Sept. 10, 2001. In accordance with I.R.C. § 6110(k)(3), this Chief Counsel Advice should not be cited as precedent.

LEGEND

Taxpayer:
Parent:
Location:

ISSUES

In determining whether roasting is incidental to a related mining process for depletion purposes under section 613, should the cost of roasting be compared only to the cost leaching or to the cost of all subsequent mining processes?

CONCLUSION

Under the circumstances described below, roasting facilitates and therefore is related only to leaching. Accordingly, roasting can be "incidental" only to leaching in this case and in determining whether the cost of roasting is insubstantial, the cost of roasting should be compared only to the cost of leaching.

FACTS

Taxpayer is a wholly owned subsidiary of Parent and is included with Parent's consolidated return. Taxpayer computes gross income from mining based on sales of leached and unleached , a mineral subject to a 14 percent rate, at its mine located in Location. The production is processed for eventual sale as rare

earth elements. Taxpayer has computed gross income from mining for its entire production using a representative field price.

Taxpayer mines the ore by the open-pit method, which involves drilling, blasting and loading into trucks with power shovels, followed by hauling to a mill for beneficiation. At the mill, the ore is crushed by a primary and secondary crusher. Next, a slurry of crushed material is heated and passed through flotation cells separating the from the ore. This yields a 60 percent rare earth concentrate.

If Taxpayer does not sell the concentrate to third parties, the concentrate is sent to Taxpayer's chemical plant for further processing. At the chemical plant, the concentrate is first roasted[1] by heating to a temperature of 1,100° F for 4 hours. The primary purposes of the roasting are to eliminate carbon dioxide and to convert the concentrate into rare earth oxide. The concentrate is then cooled and is ready for further processing to obtain rare earth products.

After roasting, the concentrate is leached[2] by hydrochloric acid. This dissolves the noncerium rare earth elements leaving the cerium behind. The remaining portion is called rare earth chloride. This rare earth chloride is then subjected to solvent extraction where europium and other rare earths are further separated.

The facts in this case were the subject of a Field Service Advice, dated June 28, 1994 (the 1994 FSA). The issue in that case was whether roasting of the mineral prior to leaching at the chemical plant is a mining or nonmining process.

The 1994 FSA concludes that because roasting is not a specifically enumerated mining process under section 613(c)(5), it otherwise would be classified as a mining process only if it is "necessary or incidental" to a mining process specifically enumerated in section 613(c)(4)(D). The 1994 FSA does not consider roasting to be necessary because Taxpayer failed to demonstrate that roasting is an essential or indispensable prerequisite to the leaching of Taxpayer's concentrate.

With respect to whether roasting is incidental, the 1994 FSA states that

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[1] "Roasting" is defined as a heating operation for the purpose of driving off volatile matter or to effect certain chemical changes at temperatures below those required for complete fusion. Rev. Proc. 78-19, § 48, 1978-2 C.B. 491.

[2] "Leaching" is defined as the separation of metallic or nonmetallic compounds from ore by causing the desired substance to dissolve in an aqueous solution of acid, base, or salt, and the separation of the solution from the solid residue. The solvent is usually recovered by precipitation of the desired substance. Rev. Proc. 78-19, § 30, 1978-2 C.B. 491.

> [i]n determining whether a process is incidental, the courts have applied a two-part test. First, the process must take place prior to a mining process and facilitate the performance of the mining process. Second, it must be insubstantial when compared to the costs of the other process.

The 1994 FSA then concludes that the proper standard is to compare the cost of roasting to the cost of leaching to determine whether roasting is incidental.

We understand that it is Taxpayer's position that in comparing the cost of roasting only to the cost of leaching, the 1994 FSA does not apply the proper standard for determining whether roasting is incidental. The correct standard is to compare the cost of roasting to all the costs of mining processes incurred subsequent to roasting.

You have requested advice whether Taxpayer's comments would change any of the conclusions reached in the 1994 FSA.

LAW AND ANALYSIS

Section 613(a) provides, in part, that in the case of mines and other natural deposits listed in section 613(b), the allowance for depletion under section 611 is the percentage specified in section 613(b) of the gross income from the property.

Section 613(c)(1) provides that the term "gross income from the property" means, in the case of a property other than an oil or gas well and other than a geothermal deposit, gross income from mining.

Section 613(c)(2) provides, in part, that the term "mining" includes not only the extraction of ores and minerals from the ground, but also the treatment processes considered as mining described in section 613(c)(4) (and the treatment processes necessary or incidental thereto.)

Section 613(c)(4) lists the treatment processes where applied by the owner or operator are considered as mining to the extent they are applied to the ore or mineral in respect of which he is entitled to a deduction for depletion under section 611. Allowable mining processes listed in section 613(c)(4)(D) include crushing, grinding, beneficiation by concentration (flotation), cyanidation, leaching, crystallization, precipitation (but not electrolytic deposition, roasting, thermal or electric smelting, or refining), or by substantially equivalent processes or a combination of processes used in the separation or extraction of the product from the ore or the mineral or minerals from other material from the mine or other natural deposit.

Section 613(c)(5) lists certain processes that are not considered mining unless they are otherwise provided for in section 613(c)(4) (or are necessary or incidental to processes so provided for.) Roasting is specifically listed as a nonmining process.

Treas. Reg. § 1.613-4(f)(2)(iii) provides that a process is "incidental" to another related process if the cost thereof is insubstantial in relation to the cost of the other process, or if the process is merely the coincidental result of the application of the other process. If a taxpayer demonstrates that, as a factual matter, a particular process is necessary or incidental to a process named as a mining process in section 613(c)(4) or Treas. Reg. § 1.613-4(f)(2), the necessary or incidental process also will be considered a mining process.

CASE DEVELOPMENT, HAZARDS AND OTHER CONSIDERATIONS

Taxpayer relies on Barton Mines v. Commissioner, 446 F.2d 981 (2d Cir. 1971), as support for its position that the correct standard for determining whether roasting is incidental is to compare the cost of roasting to all the costs of mining processes incurred subsequent to roasting to determine whether the cost of roasting is insubstantial. Taxpayer notes that in Barton Mines, the cost of the process in question was deemed "insubstantial relative to the other *processes* in the grain mill." Barton Mines, 446 F.2d at 993 (emphasis added). Thus, the court compared the cost of the nonmining process to the costs of multiple subsequent processes.

We believe that Taxpayer's reliance on Barton Mines is misplaced. In Barton Mines, the court considered whether a number of treatment processes applied in a series by a taxpayer were necessary or incidental to mining processes.

The court stated that "[t]he common meaning of 'incidental'. . . implies that the process must occur in subordinate conjunction with a mining process, and that it is the coincidental and secondary result of the mining process." *Id*. at 992. The court noted, however, that the Treas. Reg. § 1.613-4(f)(2)(iii) definition of "incidental," "in addition to allowing for processes that are the coincidental result of mining processes, also includes any process *related* to a mining process so long as its cost is insubstantial in relation to the cost of the mining process." *Id*.

The court explained, however, that "relatedness" is not enough for a nonmining process to be considered incidental to a mining process. Rather, "properly construed, the term 'incidental' describes a process that takes place prior to a mining process and, although not essential or indispensable to the mining process, is designed to facilitate its performance." *Id*. at 993.

The court in Barton Mines recognized that the drying accomplished by the disputed process, dryer H, was

> designed to facilitate the subsequent screening processes in the grain mill which accomplished gravity separation. That function was, therefore, related to concentration processes in the same way that the thawing of frozen ore is incidental to concentration in the example provided by the Regulation defining the term "incidental . . . ." *Id*.

The court then concluded that "dryer H was, therefore, incidental to the grain mill's concentration process, and if the cost was insubstantial relative to the other processes in the grain mill, it qualifies as a mining process under § 613(c)(2)." *Id*.

Under Treas. Reg. § 1.613-4(f)(2)(iii), a nonmining process is incidental to a mining process if the nonmining process is *related* to a mining process and the cost of the nonmining process is insubstantial in relation to the cost of the mining process. The court in Barton Mines emphasized that the nonmining process in question in that case *facilitated* and, therefore, was *related* to subsequent grain mill processes. Thus, the court compared the cost of nonmining process to the cost of multiple processes in the grain mill, not because the mining processes occurred subsequent to the nonmining process, but because the processes in the grain mill were determined to be *related* to the nonmining process.

In this case, the mining processes that occur subsequent to roasting are leaching, precipitation, and solvent extraction. The facts show that roasting prior to leaching is more economical and efficient than leaching alone. Furthermore, we understand that the Taxpayer's expert stated that a stronger leaching with longer residence times would nevertheless accomplish the combined processes of roasting and leaching. These facts indicate that the other processes, precipitation and solvent extraction may be performed without the benefit of roasting as long as the appropriate amount of leaching is performed. The purpose of roasting in this case is to make the leaching process more economical and efficient. Thus, roasting facilitates and therefore is related only to leaching. Accordingly, our position continues to be that roasting can be "incidental" only to leaching in this case and in determining whether the cost of roasting is insubstantial, the cost of roasting should be compared only to the cost of leaching.

This writing may contain privileged information. Any unauthorized disclosure of this writing may have an adverse effect on privileges, such as the attorney client privilege. If disclosure becomes necessary, please contact this office for our views.

If you have any questions concerning this memorandum, please contact Jaime Park at (202) 622-3120.

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