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interim requirement that each NSO provide for the use of constant controls shall not occur until EPA approves or disapproves the issuance of an NSO to the source requesting such a waiver.

§ 57.814 Administrative record.

(a) *Establishment of record.* (1) Upon receipt of request for a waiver, an administrative record for that request shall be established, and a Record and Hearing Clerk appointed to supervise the filing of documents in the record and to carry out all other duties assigned to him under this subpart.

(2) All material required to be included in the record shall be added to the record as soon as feasible after its receipt by EPA. All material in the record shall be appropriately indexed. The Hearing Clerk shall make appropriate arrangements to allow members of the public to copy all nonconfidential record materials during normal EPA business hours.

(3) Confidential record material shall be indexed under paragraph (a)(2). Confidential record material shall, however, be physically maintained in a separate location from public record material.

(4) Confidential record material shall consist of the following:

(i) Any material submitted pursuant to § 57.802 for which a proper claim of confidentiality has been made under section 114(c) of the Act and 40 CFR part 2; and

(ii) The Staff Computational Anaylsis prepared under § 57.803

(b) *Record for issuing tentative determination.* The administrative record for issuing the tentative determination required by § 57.803 shall consist of the material submitted under § 57.802 and any additional materials supporting the tentative determination.

(c) *Record for acting on requests for cross-examination.* The administrative record for acting on requests for cross-examination under § 57.808 shall consist of the record for issuing the tentative determination, all comments timely submitted under §§ 57.803(e)(4) and 57.805, the transcript of the hearing, and any additional material timely submitted under § 57.807(d).

(d) *Record for preparation of recommended decision.* The administrative record for preparation of the recommended decision required by § 57.811 shall consist of the record for acting on request for cross-examination, the transcript of any supplementary hearing held under § 57.808(c), any materials timely submitted in lieu of or in addition to cross-examination under § 57.808(d), and all briefs, proposed findings of fact and proposed recommendations timely submitted under § 57.810.

(e) *Record for issuance of final decision.* (1) Where no hearing has been held, the administrative record for issuance of the Administrator's final decision shall consist of the record for issuing the tentative determination, any comments timely submitted under § 57.803(e)(4), any briefs or reply briefs timely submitted under § 57.812 (a) through (c), and the transcript of any oral argument granted under § 57.812(d).

(2) Where a hearing has been held, the administrative record for issuance of the Administrator's final decision shall consist of the record of preparation of the recommended decision, any briefs or reply briefs submitted under § 57.812 (a) through (c), and the transcript of any oral argument granted under § 57.812(d).

§ 57.815 State notification.

The Administrator shall give notice of the final decision in writing to the air pollution control agency of the State in which the smelter is located.

§ 57.816 Effect of negative recommendation.

No waiver of the interim requirement for the use of constant controls shall be granted by the Administrator or a State unless the Administrator or a State first takes into account the Administrator's report, findings, and recommendations as to whether the use of constant controls would be so costly as to necessitate permanent or prolonged temporary cessations of operation of the smelter.

APPENDIX A TO PART 57—PRIMARY NONFERROUS SMELTER ORDER (NSO) APPLICATION

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1. General Instructions

1.1 Purpose of the application. This application provides financial reporting schedules and the accompanying instructions for EPA's determination of eligibility for a nonferrous smelter order (NSO), and for a waiver of the interim constant controls requirement of an NSO. Although the determination of eligibility for an NSO is prerequisite for the determination of a waiver, appendix A, as a matter of convenience to applicants, includes both the NSO and waiver tests and reporting schedules.

In order to support an NSO eligibility determination, the applicant must submit operating and financial data as specified by the schedules included in this application. Specific instructions for completing each schedule are provided in subsequent sections of the instructions. In general, applicants must provide:

(a) Annual income statements, balance sheets and supporting data covering the five most recent fiscal years for the smelter for which the NSO requested.

(b) Forecasts of operating revenues, operating costs, net income from operations and capital investments for the firm's smelter operations subject to this application, on the basis of anticipated smelter operations without any sulfur dioxide air pollution control facilities that have not been installed as of the NSO application date.

(c) Forecasts of operating revenues, operating costs, net income from operations and capital investments for the firm's smelter operations subject to this application, on the basis of anticipated smelter operations with expected additional sulfur dioxide control facilities required to comply with the smelter's SIP emission limitation.

(d) For smelters applying for a waiver of interim constant controls, forecasts of operating revenues, operating costs, and capital investments for the firm's smelter operations prepared on the basis of two alternative assumptions: (1) Installation of additional pollution control facilities required to comply with interim constant control requirements, no installation of any additional SO_2 controls that the smelter would otherwise be required to install but for the issuance of an NSO, and closure of the smelter after January 1, 1988; and (2) installation of additional pollution control facilities required to comply with interim constant control requirements, installation of any additional SO_2 controls required to comply with the smelter's SIP emission limitation by January 2, 1988, and continued operation of the smelter after January 1, 1988.

1.2 NSO financial tests. EPA will use separate tests to determine eligibility for an NSO and to evaluate applications for a waiver of the interim constant control requirement. The two tests for NSO eligibility employ a present value approach for determining the reasonable availability of constant control technology that will enable an applicant to achieve full compliance with its SIP sulfur dioxide emission limitation. The tests for the waiver of the interim constant control requirements employ variable costing and discounted cash flow standards for evaluating an applicant's economic capability to implement those requirements.

1.2.1 *NSO Eligibility Tests.* Each applicant must establish that the system of production and/or constant control technology that will enable the smelter to achieve full compliance with its SIP SO_2 emission limitation

standard is not reasonably available. An applicant will determine financial eligibility for an NSO by passing at least one of the following two tests.

(a) *Profit Protection Test.* The smelter will experience a reduction in pre-tax profits of 50 percent or more after undertaking the required installation of constant controls.

(b) *Rate of Return Test.* The smelter will earn a rate of return on historical net investment, expressed in constant dollars, below the industry average cost of capital after undertaking the required installation of constant controls.

1.2.2 *Temporary Waiver from Interim Controls.* Applicants that do not have an existing constant control system or whose constant controls are not sufficient when in operation and optimally maintained to treat all strong streams in accordance with subpart C, may apply for a waiver of the requirements of subpart C with respect to any interim constant controls not already installed. Applicants will be eligible for a temporary waiver of the requirement for interim constant controls not already installed, if they can establish pursuant to the procedures in this application that the imposition of such control requirements would economically necessitate closure of the smelter facility for a period of one year or longer. The economic justification for a non-permanent closure under this temporary waiver test is defined as a situation in which the smelter's projected operating revenues for one or more years during which the NSO is in effect are inadequate to cover variable operating costs anticipated after installing the required interim control technology. Temporary waivers will be granted for only the period of time over which applicants can establish an inability by the firm to cover its variable operating costs. Interim control waiver requests based on the smelter's projected inability to earn adequate income after installation of interim pollution control equipment will be subject to the permanent waiver test.

1.2.3 Permanent Waiver from Interim Controls. Applicants that do not have an existing constant control system or whose constant controls are not sufficient when in operation and optimally maintained to treat all strong streams in accordance with subpart C, may apply for a waiver of the requirements of subpart C with respect to any interim constant controls not already installed. Applicants will be eligible for a permanent waiver of the requirement for interim constant controls not already installed, if they can establish pursuant to the procedures in this application that an imposition of such control requirements would necessitate permanent closure of the smelter. Economic justification for a permanent closure is defined as a situation in which the present value of future cash flows anticipated from the smelter after installing the required interim control technology is less than the smelter's current salvage value under an orderly plan of liquidation. Future cash flows are determined under two alternative assumptions. The higher present value of cash flows computed under these assumptions is then compared to salvage value.

1.2.4 EPA Contact for NSO Inquiries. Inquiries concerning this portion of the requirements for NSO application should be addressed to Laxmi M. Kesari, Environmental Protection Agency, EN 341, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

1.2.5 Certification. The NSO Certification Statement must be signed by an authorized officer of the applicant firm.

1.3 Confidentiality. Applicants may request that information contained in this application be treated as confidential. Agency regulations concerning claims of confidentiality of business information are contained in 40 CFR part 2, subpart B (41 FR 36902 *et seq.*, September 1, 1976, as amended by 43 FR 39997 *et seq.*, September 8, 1978). The regulations provide that a business may, if it desires, assert a business confidentiality claim covering part or all of the information furnished to EPA. The claim must be made at the same time the applicable information is submitted. The manner of asserting such claims is specified in 40 CFR 2.203(b). Information covered by such a claim will be handled by the Agency in accordance with procedures set forth in the subpart B regulations. EPA will not disclose information on a business that has made a claim of confidentiality, except to the extent of and in accordance with 40 CFR part 2, subpart B. However, if no claim of confidentiality is made when information is furnished to EPA, the information may be made available to the public without notice to the business.

2. NSO Financial Reporting Overview

2.1 Revenue and Cost Assignment. The amounts assigned to operations of the smelter subject to this NSO application should include (1) revenues and costs directly attributable to the smelter's operating activities and (2) indirect operating costs shared with other segments of the firm to the extent that a specific causal and beneficial relationship can be identified for the allocation of such costs to the smelter. Do not allocate revenues and costs associated with central administrative activities for which specific causal and beneficial relationships to the activities of the smelter cannot be established. Nonallocable items include, but are not restricted to, amounts such as dividend and interest income on centrally administered portfolio investments, central corporate administrative office expenses and, except for schedules supporting the Profit Protection

Test, interest on long-term debt financing arrangements. Provide a detailed explanation of amounts classified as nontraceable on a separate schedule and attach as part of Exhibit B.

2.2 Transfer Prices on Affiliated Part Transactions. Certain transactions by the smelter subject to an NSO application may reflect sales to or purchases from ''affiliated'' customers or suppliers with whom the smelter has a common bond of ownership and/or managerial control. In preparing this application, affiliated party transactions shall be defined as transactions with any entity that the firm, or its owners, controls directly or indirectly either through an ownership of 10 percent or more of the entity's voting interests or through an exercise of managerial responsibility. Applicants must attach as part of Exhibit B supporting schedules explaining the pricing policies established on affiliated party transactions incorporated in the financial reporting schedules.

Prices on inter-segment material and product transfers within a firm, or on external purchases from and sales to other affiliated suppliers and customers, may differ from the prices on comparable transactions with unaffiliated suppliers and customers. In this event, applicants also must present in the Exhibit B supporting schedules and incorporate in the NSO financial reporting schedules appropriate adjustments for restating affiliated party transactions. Affiliated party transactions must be restated at either (a) equivalent prices on comparable transactions with unaffiliated parties if such price quotations can be obtained or (b) prices that provide the selling entity with a normal profit margin above its cost of sales if a meaningful comparison with unaffiliated transaction prices cannot be established.

A ''normal'' profit margin is defined as the gross operating profit per dollar of operating revenue that will provide an average after-tax rate of return on permanent capital (total assets less current liabilities). This average rate of return is defined differently for the historical and forecast periods. The applicant must use a rate of return of 8.0 percent for the *historical* period. This figure is based on a historical average earned rate of return for the nonferrous metals industry.[1] EPA may update this figure periodically. The updates will be available in the rulemaking docket or from the INFORMATION CONTACT noted in the FEDERAL REGISTER. For the *forecast* period, the applicant must use a rate of return equal to the current weighted average cost of capital for the nonferrous metals industry, as computed in Section 2.6.

[1]The derivation of this figure is explained in two memoranda to EPA (Item Nos. II-A-1 and IV-A-6a in EPA Docket No. A-82-35).

Forecast smelting charges for integrated smelters can be computed from forecast market smelting charges. Integrated copper smelters may use as the basis of their forecast revenues the forecast copper smelting charges provided by EPA, adjusted as described in Section 2.4.1. An applicant may submit other forecasts, providing the forecast methodology is in accordance with the guidelines in Section 2.5 and fully documented as part of Exhibit B.

2.3 Forecasting Requirements. NSO applicants must provide the Agency with financial forecasts in Schedules B.1 through B.6 and C.1 through C.2. Applicants requesting either a temporary or permanent waiver from interim constant control requirements also must provide an additional set of financial forecasts in Schedules D.1 through D.4.

2.3.1 Forecast Period. The forecast period must include at least two full years following completion and startup of the required pollution control system. The forecast period shall be from 1984 through 1990 for an NSO application filed in 1984. If an application is filed in a later year, the 1984 through 1990 period should be adjusted accordingly. All references in this appendix to the period 1984 through 1990 should be interpreted accordingly.

2.3.2 Forecast Adjustment by Control Case. Some line items that have the same title in several schedules may contain different information because they are based on different assumptions regarding pollution controls. Production interruptions or curtailments due to the installation of pollution control facilities may require adjustments to certain revenue and cost estimates in the respective control cases. For example, production curtailments associated with supplementary control systems may be the basis for the pre-control case, yet are eliminated when constant controls replace supplementary control systems in the constant controls case. The application of pollution control techniques that involve process changes in the smelter's operations (e.g., conversion to flash smelting) also may require specific forecasts by applications of associated impacts on incremental operating revenues and costs.

2.3.3 Nominal Dollar Basis. Applicants must make their financial forecasts in terms of nominal dollars. Forecasts of selected parameters provided by EPA will furnish guidelines to an applicant in preparing the required cost and revenue estimates. In particular, copper smelting charges provided in nominal-dollar terms must be used directly by the applicant as given; i.e., the stipulated charge estimates should not be inflated.

2.3.4 Tolling Service Equivalent Basis. Applicants must express all revenue forecasts on a tolling service equivalent basis. Thus,

forecast revenues are computed as the product of the forecast quantity of processed concentrate, the forecast average product grade of the concentrate (the percent of metal in the concentrate), and the forecast smelting charge. Smelters that are not tolling smelters and that do not use the copper smelting charges provided by EPA (as described in Section 2.4.1) can forecast a smelting charge from forecast product grade of the concentrate, percent recovery, and product and concentrate prices. The forecast prices and derivation of the smelting charge must be in accordance with the guidelines in Section 2.5, and the methodology must be fully documented in Exhibit B.

2.4 EPA Furnished Forecast Data. In making projection for the period 1984 through 1990, applicants must, except as noted below, use the indices provided by EPA. The table below presents yearly values for each index (expressed as annual percentage rates of change) to be used by smelters applying for an NSO before January 1, 1985. If forecasts are needed for 1991 and EPA has not provided new forecasts, applicants should use the Data Resources, Inc. forecasts for 1991 (Docket Item No. IV-A-6c) and the average of CRU's forecasts for 1989 and 1990 (expressed in 1991 dollars).

	1984	1985	1986	1987	1988	1989	1990
Copper smelting charge [1] (cents per pound)	14.5	14.6	16.0	15.3	15.3	15.5	15.4
Annual Percentage Rates of Change							
Wages	5.0	5.7	5.8	6.1	6.4	6.7	7.0
Energy prices:							
Electricity	7.0	8.8	8.1	8.3	7.1	4.9	5.5
Natural gas	3.6	5.7	9.3	8.7	9.2	8.0	8.4
Coal	5.1	7.0	8.9	9.0	9.7	9.7	9.7
Fuel oil	1.6	4.2	7.7	6.8	9.8	9.5	9.9
GNP price deflator	4.8	5.0	5.0	5.2	5.8	5.8	5.9

[1] Reference charge for calculating smelter-specific copper smelting charges as described in Section 2.4.1.

2.4.1 Copper smelting charge. EPA will supply a forecast of reference copper smelting charges. These charges, which are f.o.b. U.S. mine, are based on an estimate of export smelting charges and on the differential value of copper in the U.S. and the world market. They must be used in forecasting unaffiliated party revenues for the period following the expiration of existing contracts and in forecasting affiliated party revenues for the entire forecast period. The applicant may submit its own smelting charge forecast for the post-contract period, provided that such forecast is in accordance with the guidelines in Section 2.5 and fully documented and substantiated as part of Exhibit B.

The EPA forecast export charge represents the world market copper smelting charge with copper valued at the London Metal Exchange (LME) copper price. This charge serves as the reference charge for the applicant copper smelter in calculating its smelting charges. Applicant copper smelters must derive their smelting charges from this world market charge as described in paragraph (a) below.

The applicant may adjust the derived smelter-specific smelting charge to account for other factors, provided the adjustments are fully documented as part of Exhibit B. An example of such a factor is the unit deduction for metallurgical losses in smelting. Adjustment for this factor is discussed in paragraph (b) below.

(a) The derivation of a smelter-specific smelting charge from the world market charge is based on assumptions regarding transportation costs and the U.S. producer-world copper price differential. The EPA forecast export charge is the forecast smelting charge available at a Japanese smelter, with copper valued at the London Metal Exchange copper price. The charge includes no freight costs, which must be paid by the mine. A U.S. smelter determines its smelting charge to a mine by meeting the combined world market smelting charge, adjusted to reflect copper valued at the U.S. producer price, and the transportation charge from the mine to the Japanese smelter. This combined price is the highest that a mine is willing to pay for smelting.

The smelter's net smelting charge is equal to the combined world smelting charge, adjusted to the U.S. producer price for copper (i.e., the export forecast charge plus the U.S. producer price premium), and the transportation cost between the mine and a Far East smelter, minus the cost of transporting the concentrate between the mine and the applicant smelter.

The applicant smelter's net smelting charge for concentrate from an individual mine is computed by first adding the U.S. producer Price-LME world price differential to the EPA-supplied forecast. The cost of transporting copper from the U.S. mine to the Far East is then added to this figure. The

net smelting charge is obtained by subtracting from this total the cost of transporting copper from the mine to the applicant smelter. In making these calculations, an applicant must supply (and fully document in Exhibit B), the freight cost between the mine and the Far East and between the mine and the smelter. This freight cost must be converted to nominal dollars of the respective forecast years by applying the GNP percentage price change forecasts supplied by EPA or smelter-provided forecasts of transportation price changes. The smelter-provided forecasts of transportation price changes must comply with guidelines regarding such forecasts in Section 2.5.

An applicant must use a 3 cent per pound U.S. producer price premium (relative to the LME price) in calculating the smelter's net smelting charge. The applicant may substitute its own forecasts of the U.S. producer price premium if it can substantiate such forecasts in accordance with the guidelines in Section 2.5 regarding applicant-provided smelting charge forecasts of principal products. All supporting documentation for such applicant-supplied forecasts must be supplied in Exhibit B. Any updates of the producer price premium will be available in the rulemaking docket or from the INFORMATION CONTACT noted in the FEDERAL REGISTER.

The following two representative examples illustrate this methodology for making the transportation and U. S. producer price premium adjustment.

(1) The applicant smelter, located in Arizona, obtains concentrate from an adjacent mine. The freight charge from mine to smelter is zero. The mine is willing to pay the applicant smelter an amount no higher than the sum of the world market smelting charge (adjusted for the copper value differential) and the transportation cost of shipping copper from the mine to the Far East. This combined cost is the net charge received by the applicant smelter. If the export smelting charge is 12 cents per pound and the freight cost between the mine and the Far East is 13 cents per pound, the applicant smelter would calculate a net smelting charge equal to 28 cents: 12 cents plus 3 cents (for the U.S. producer price premium) plus 13 cents (for the freight cost between the mine and the Far East).

(2) The applicant smelter obtains concentrate from a nonadjacent mine. The mine will pay a charge no higher than the total market smelting charge, valued at the U.S. producer price, and the transportation costs between the mine and a Far East smelter. The applicant's net smelting charge is equal to this combined cost minus the transportation costs for shipping the concentrate between mine and applicant smelter.

Suppose that the mine to Far East freight charge is 13 cents per pound and the mine to applicant smelter freight charge is 4 cents per pound. If the export smelting charge is 12 cents per pound, the net smelting charge is equal to 24 cents per pound: 12 cents plus 3 cents (for the U.S. producer price premium) plus 13 cents (for the freight cost to the Far East) minus 4 cents (for the freight cost to the applicant smelter).

(b) The EPA forecast charges are based on a one unit deduction for metallurgical losses. This means that if a concentrate grades 25 percent copper, the mine is only credited with 24 percent for metal return. The one unit deduction on 25 percent concentrate is equivalent to a 96 percent payment for contained copper. Should a smelter recover less than 96 percent, its revenue would be less than the EPA forecast smelting charge. Should a smelter recover more than 96 percent, its revenue would be greater than the EPA forecast smelting charge.

2.4.2 Indices (Annual Percentage Changes). These indices, which are expressed as annual percentage rate changes in price (wages, energy prices, and GNP price deflator) must be used only for estimating the rate of price increases for the forecast period following the expiration of the applicant's current contracts. The applicant may use alternative forecasts of annual percentage changes for the forecast period following the expiration of current contracts, if justification is provided. Any such alternative forecasts must be prepared by a widely-recognized forecasting authority with expertise comparable to that of the forecaster relied upon by EPA. In addition, the documentation of these forecasts must be comparable to that provided by EPA's forecaster.

The wage indices are to be applied to wage paid to manufacturing labor. The energy price indices are to be applied to prices of the respective energy products. The GNP price deflators are to be applied to prices for non-metal, non-labor, and non-energy inputs.

2.5 Applicant Generated Forecasts. Within the specified limitations, applicants may submit a method of forecasting smelting charges and by-product, co-product and other prices. The method selected must be explained and unit prices or costs provided where applicable. The forecast elements must be compatible with an applicant's historical cost and revenue elements to permit direct comparisons of historical and forecast data. Applicants must attach as part of Exhibit B appropriate schedules explaining variances between forecast and historical unit costs for the smelter.

Forecasts of the smelting charges of the smelter's principal product (i.e., copper, lead, zinc, etc.) may be prepared either by an independent forecasting authority or by the smelter's in-house personnel. If the forecasts are prepared by an independent forecasting authority, the following conditions must be satisfied: (1) The forecasting authority must

have expertise comparable to that of the forecaster relied upon by EPA. (2) As much documentation of the forecasting methodology as can reasonably be obtained must be made available to EPA. Such documentation must, at a minimum, be comparable to the documentation supporting EPA smelting charge forecasts.[2]

If the smelting charge forecasts are prepared by in-house personnel, the following conditions must be met: (1) The in-house forecasts must be certified as being based on sound methodology by an independent forecasting authority with expertise comparable to that of the forecaster who prepared the EPA-supplied smelting charges. The independent forecasting authority shall also provide a brief explanation of the basis for the conclusion reached in the certification. (2) The smelter owner shall provide EPA with the documentation of the forecasting methodology employed, which must at a minimum be comparable to the extent of documentation supporting EPA's smelting charge forecasts. The smelter owner shall also make available upon request by EPA such additional documentation of the methodology and underlying data as EPA considers appropriate for evaluation of the forecasts.

Forecasts of freight cost changes, which are applied to the freight costs used in calculating a smelter's net smelting charges, must be prepared by a widely-recognized forecasting authority. The forecaster's expertise must be comparable to that of the forecaster relied upon by EPA in forecasting the annual percentage changes in wages, energy prices, and GNP. The documentation of these forecasts must be comparable to that provided by EPA's forecaster.

To the maximum extent practicable, by-product, co-product and (when applicable) unaffiliated smelting charges must be stated at market prices adjusted to f.o.b. smelter. Adjustments of these pricing bases must be made to reflect differences in grades and types of production. All adjustments must be consistent with expected sales, grades and types of concentrate processed. Applicants must attach as part of Exhibit B schedules describing and explaining the methods used to forecast these revenue items and the adjustments required for these revenue forecasts.

Applicants must explain fully any changes from the historical data that are required to forecast labor productivity, ore-concentrate grade and composition, materials and energy consumption per unit of output, yield rates and other physical input/output relationships.

Existing contractual terms must be used in forecasting those sales or input costs or prices to which the applicant is committed by contracts. The use of contract-dictated prices must be disclosed and supported by attaching as part of Exhibit B the terms and duration of labor and other supplier arrangements.

Cost of compliance estimates need not be to the accuracy of final design/bid estimates; feasibility grade estimates will be acceptable. Updated cost of compliance estimates used in internal five year plans or specially prepared estimates of costs of compliance will generally be satisfactory.

2.6 Weighted Average Cost of Capital for Nonferrous Metal Producers. The industry average cost of capital is a weighted average of the rates of return for equity and debt. Its components are the interest rate and the return on equity specific to the nonferrous metals industry.

2.6.1 Computation.[3] The applicant must compute the cost of capital according to the following formula:

$R = (0.65 \times E) + (0.182 \times I)$

where

R = weighted average cost of capital
E = return on equity
I = interest rate.

The components are calculated as follows.

(a) *Return on equity for the nonferrous metals industry.* The 20 year Treasury bond yield to maturity plus a risk premium of 8.6 percent.

(b) *Interest Rate.* The 20 year Treasury bond yield to maturity plus a risk premium of 3.0 percent.

(c) *Source of the 20 Year Treasury bond yield. Federal Reserve Bulletin*, most recent monthly issue. Use the average yield for the most recent full month.

2.6.2 Discount Factor. The discount factor corresponding to the weighted average cost of capital for any forecast year is computed according to the following equation:

$$DF = \frac{1}{(1+R)}N$$

where

DF = discount factor
R = weighted average cost of capital
N = the number of years in the future (e.g., for the applicant applying in 1984, N = for the forecast year 1985).

The horizon value, which is described in Section 2.7, is computed as of 1990, the end of the detailed forecast period. The discount factor to be applied to the horizon value is

[2] Documentation of the EPA forecasts is provided as part of Item NO. IV-A-2 in EPA Docket No. A-82-35.

[3] The derivation of the formula and the basis of the parameters are explained in two memoranda to EPA (Item Nos. II-A-1 and IV-A-6a in EPA Docket No. A-82-35).

the same as for any other 1990 figure. For example, if the application is made in 1984, the value of N is 7.

2.7 Horizon Value. The horizon value is the present value of a stream of cash flows or net income for 15 years beyond the last forecast year. Applicants must compute the horizon value by capitalizing the average forecast value of the last two forecast years using the current real weighted cost of capital. The line item instructions for schedules having a horizon value entry will specify the values to be capitalized.

The applicant averages the values of the last two years after expressing both values in terms of the last year's dollars. The two-year average value is then multiplied by 9.6. This is the factor associated with capitalizing a 15 year value stream at the current *real* weighted cost of capital of 6.2 percent.

Applicants must use a separate schedule to calculate the horizon value for the Rate of Return Test and the Interim Controls Test (Schedule C.5 and D.7, respectively). These separate schedules adjust for potential overstatements in the horizon value cash flows that may be caused by control equipment depreciation reported for tax purposes.

2.8 Data Entry

2.8.1 Rounding. All amounts (including both dollar values and physical units) reported in the schedules and exhibits accompanying this application must be rounded to the nearest thousand and expressed in thousands of dollars or units unless otherwise indicated in the instructions.

2.8.2 Estimates. Where an applicant's records cannot produce the specific data required by this application, the use of estimates will be allowed if a meaningful estimate can be made without significant distortion of the reported results. Data estimates must be supported by attaching on a separate sheet of paper as a part of Exhibit B an explanation identifying where such estimates are used and showing explicitly how the estimates were made.

2.8.3 Missing Data. Applicants must provide, where applicable, all operating and financial data requested by this application. Only substantially complete applications can be accepted for processing by the Agency. Questions concerning data entries for which information is not provided by or cannot reasonably be estimated from the applicant's existing accounting records should be addressed to the EPA Contact for NSO Inquiries.

2.8.4 Historical Period. The annual data requested in the historical schedules, Schedules A.1 through A.4, must be reported for each of the five fiscal years immediately preceding the year in which this application is filed. The historical period shall be from fiscal years 1979 through 1983 for an NSO application filed in 1984. If an application is filed in a later year, the references in this appendix to the period 1979 through 1983 should be interpreted accordingly.

2.9 Use of schedules. All applicants must complete Schedules A.1 through A.4, which record historical revenues, cost, and capital investment data. These schedules will be used by EPA to assist in evaluating forecast data. Completion of the remaining schedules depends on the test required of the applicant.

2.9.1 NSO Eligibility. An NSO applicant must pass one of the following two tests and complete the corresponding schedules.

(a) *Profit Protection Test.* The applicant must complete Schedules B.1 through B.7 to determine eligibility under the Profit Protection Test. Schedules B.1 and B.2 report the base case (without constant controls) revenue and cost forecast, respectively, and Schedule B.3 summarizes Schedules B.1 and B.2. Base case production forecasts should reflect any production curtailments associated with interim controls currently (preforecast) installed on smelters. Schedules B.4 and B.5 report the revenue and cost forecast, respectively, for the constant controls case, and Schedule B.6 summarizes Schedules B.4 and B.5 for the Profit Protection Test.

Schedule B.7 presents the calculations for the Profit Protection Test. The applicant enters the forecast profits from Schedules B.3 and B.6. The present value of the forecast profits is then computed for each case. If the present value of forecast pre-tax profits with constant controls is less than 50 percent of the present value of forecast pre-tax profits without controls (base case) the smelter passes the test and is eligible for an NSO. The smelter also passes the test if the present value of forecast pre-tax profits without controls (base case) is negative.

(b) *Rate of Return Test.* The applicant must complete Schedules B.4, B.5, and C.1 through C.5 to determine eligibility under the Rate of Return Test. Schedules B.4 and B.5 report the revenue and cost forecast, respectively, for the constant controls case, and Schedule C.1 summarizes Schedules B.4 and B.5 for the Rate of Return Test. Schedule C.2 reports forecast sustaining capital investment for the constant controls case. Schedule C.3 reports historical net investment for the most recent fiscal year expressed in constant dollars, i.e., dollars of the year in which the application is made.

Schedule C.4 presents the calculations for the Rate of Return Test. The applicant reports in Schedule C.4 the forecast cash flows from Schedules C.1 and C.2 and the horizon value from Schedule C.5, computes their present value, and subtracts the value of invested capital in constant dollars (taken from Schedule C.3) to yield net present value. If the net present value is less than zero, the smelter passes the test and is eligible to receive an NSO. This result indicates that the smelter is expected to earn a rate of

return less than the industry average cost of capital.

2.9.2 Interim Control Waivers. An applicant for a waiver from interim controls must complete either a portion or all of Schedules D.1 through D.7, depending on whether the application is for a temporary or permanent waiver.

(a) *Temporary Waiver from Interim Controls Test*. The applicant must complete Schedules D.1 through D.3 to establish eligibility for a temporary waiver from interim controls. Schedules D.1 and D.2 report forecast revenue and cost data under the assumption of installation of interim constant control equipment and no installation of any additional SO_2 controls that the smelter would otherwise be required to install but for the issuance of the NSO. Schedule D.3 summarizes Schedules D.1 and D.2 and calculates gross operating profit. If gross operating profit is negative for any year during which the NSO is in effect, the applicant is eligible for a temporary waiver.

(b) *Permanent Waiver from Interim Controls Test*. The applicant must complete Schedules D.1 through D.7. All schedules except for Schedule D.5 must be completed twice, based on two alternative assumptions: (1) installation of interim constant control equipment, no installation of any additional SO_2 controls that the smelter would otherwise be required to install but for the issuance of the NSO, and closure of the smelter after January 1, 1988; and (2) installation of interim constant control equipment, installation of any additional SO_2 controls required to comply with the smelter's SIP emission limitation by January 2, 1988, and continued operation of the smelter after January 1, 1988.

Schedules D.1 and D.2 report forecast revenue and cost data under each assumption. Schedule D.3 summarizes Schedules D.1 and D.2, and Schedule D.4 reports forecast sustaining capital under each assumption. Schedule D.5 reports cash proceeds from liquidation.

Schedule D.6 presents the calculations for the permanent waiver test. In Schedule D.6, the applicant reports cash flow projections from Schedules D.3 and D.4 and the horizon value from Schedule D.7, computes their present value and subtracts the current salvage value (taken from Schedule D.5) to yield net present value. The higher of the two net present value figures computed under the two alternative assumptions must be used in the test. If the higher net present value figure is negative, the applicant is eligible for a permanent waiver.

2.10 Use of exhibits. In addition to data required by the schedules included in this application, the following information must be attached as exhibits.

2.10.1 Exhibit A. Background information on the firm's organizational structure and its associated accounting and financial reporting systems for primary nonferrous activities. This information must include, where applicable, the firm's:

(a) Operating association with an ownership control in consolidated subsidiaries, unconsolidated subsidiaries, joint ventures and other affiliated companies.

(b) Organizational subdivision of its primary nonferrous activities into profit centers, cost centers and/or related financial reporting entities employed to control the operation of its mines, concentrators, smelters, refineries and other associated facilities.

(c) Material and product flows among the smelter subject to this NSO application, other integrated facilities and its affiliated suppliers and/or customers. In the case of integrated facilities, applicants must provide process flow diagrams depicting the operating interrelationships among its mines, concentrators, smelters, refineries and other integrated facilities. For both integrated and nonintegrated facilities, applicants also must describe the proportion contributed to its primary nonferrous activities by material purchases from and product sales to affiliated suppliers and customers.

(d) Annual operating capacity over the five most recent fiscal years for the smelter subject to this application. Operating capacity must be defined in terms of the total quantity of throughput that could have been processed with the available facilities after giving appropriate allowance to normal downtime requirements for maintenance and repairs. Operating capacity data also must consider both capacity balancing requirements among processing steps and annual processing yield rates attainable for each facility.

(e) Weighted average analysis of concentrates processed and tonnage produced annually over each of the five most recent fiscal years by the smelter subject to this application.

(f) Accounting system and policies for recording investment expenditures, operating revenues, operating costs and income taxes associated with its primary nonferrous activities. Applicants also must provide a complete description of allocation techniques employed for assigning investments, revenues, costs and taxes to individual profit, cost of departmental centers for which costs are accumulated. Applicants must further indicate the relationship of cost and/or departmental accounting entities to the firm's established profit centers.

(g) Annual five-year operating and capital expenditure plans (or budgets) by individual nonferrous profit center. These documents must include previous plans prepared for the five preceding fiscal years as well as the current one-year and five-year operating and

capital expenditure plans. At least the current one-year and five-year plans must provide a specific breakdown of investment expenditures and operating costs associated with the operation and maintenance of each profit center's existing and proposed pollution control facilities.

2.10.2 Exhibit B. Supplemental description and explanation of items appearing in the financial reporting schedules. Other parts of Section 2 and the detailed instructions for the Schedules specify the information required in Exhibit B.

2.10.3 Exhibit C. Financial data documentation. Applicants must document annual balance sheet, income statement and supporting data reported for the firm's preceding five fiscal years or for that portion of the past five years during which the firm engaged in smelter operations. This documentation must be provided by attaching to the application:

(a) SEC 10–K reports filed by the parent corporation for each of the preceding five fiscal years.

(b) Certified financial statements prepared on a consolidated basis for the parent corporation and its consolidated subsidiaries. This requirement may be omitted for those years in which SEC 10–K reports have been attached to this Exhibit.

(c) Business Segment Information reports filed with the Securities and Exchange Commission by the firm for each of the preceding five years (as available).

Schedule A.1—Historical Revenue Data

General. Use Schedule A.1 to report annual historical revenue data for fiscal years 1979 through 1983. Revenues include product sales and associated operating revenues, net of returns and allowances, from smelter sales and/or transfers of copper, lead, zinc and molybdenum or other nonferrous metal products and tolling services to both unaffiliated and affiliated customers. The line items in Schedule A.1 are explained in the following instructions.

Lines 01, 14, 27 and 40—Primary Nonferrous Product Sales. Report for each year the total quantity of copper, lead, zinc and molybdenum or other nonferrous metal product sales.

Lines 02, 15, 28 and 41—Unaffiliated Customer Sales. Report for each year the respective quantities of copper, lead, zinc and molybdenum or other nonferrous metal product sales to unaffiliated customers.

Lines 03, 16, 29 and 42—Unaffiliated Customer Revenues. Report for each year the total operating revenues derived from smelter sales of copper, lead, zinc and molybdenum or other nonferrous metals to unaffiliated customers.

Lines 04, 17, 30 and 43—Unaffiliated Customer Prices. Report for each year the average unit price received on smelter sales of copper, lead, zinc and molybdenum or other nonferrous metals to unaffiliated customers. The prices are computed as operating revenues reported on Lines 03, 16, 29 and 42 divided by the quantities reported on Lines 02, 15, 28 and 41, respectively.

Lines 05, 18, 31 and 44—Average Product Quality Grade. Report for each year the average quality rating assigned to copper, lead, zinc and molybdenum or other nonferrous metal products purchased by the smelter's unaffiliated customers.

Lines 06, 19, 32 and 45—Affiliated Customers Sales. Report for each year the respective quantities of copper, lead, zinc and molybdenum or other nonferrous metal product sales to affiliated customers.

Lines 07, 20, 33 and 46—Affiliated Customer Revenues. Report for each year the total operating revenues derived from smelter sales of copper, lead, zinc and molybdenum or other nonferrous metals to affiliated customers. These revenues should be stated at prices equivalent to those received on comparable sales to unaffiliated customers as described in Section 2.2. Attach as part of Exhibit B an explanation of the methodology used to state affiliated customer revenues.

Lines 08, 21, 34 and 47—Affiliated Customer Prices. Report for each year the average unit price received on smelter sales of copper, lead, zinc and molybdenum or other nonferrous metals to affiliated customers. The prices are computed as operating revenues reported on Lines 07, 20, 33 and 46 divided by the quantities reported on Lines 06, 19, 32 and 45, respectively.

Lines 09, 22, 35 and 48—Average Product Quality Grade. Report for each year the average quality rating assigned to copper, lead, zinc and molybdenum or other nonferrous metal products purchased by the smelter's affiliated customers.

Lines 10, 23, 36 and 49—Total Primary Product Revenues. Report for each year total operating revenues derived from the smelter's sales to unaffiliated and affiliated customers of copper (Lines 03+07), lead (Lines 16+20), zinc (Lines 29+33) and molybdenum or other nonferrous metals (Lines 42+46).

Lines 11, 24, 37 and 50—Transfer Price Adjustments. Report for each year operating revenue adjustments required to equate affiliated customer transfer prices with unaffiliated customer market prices on smelter sales of copper, lead, zinc and molybdenum or other nonferrous metals. Attach as part of Exhibit B an explanation of the method used for restating transfer prices where such adjustments are necessary.

Lines 12, 25, 38 and 51—Other Revenue Adjustments. Report for each year sales returns and allowances and other adjustments applicable to the smelter's revenues derived from copper, lead, zinc and molybdenum or other nonferrous metal product sales. Attach as

part of Exhibit B a schedule reporting the types and amounts of such adjustments.

Lines 13, 26, 39 and 52—Adjusted Product Revenues. Enter for each year the sums of Lines 10 through 12 for adjusted copper sales (Line 13), Lines 23 through 25 for adjusted lead sales (Line 26), Lines 36 through 38 for adjusted zinc sales (Line 39) and Lines 49 through 51 for adjusted molybdenum or other nonferrous metal sales (Line 52).

Line 53—Primary Metal Revenues. Enter for each year the sum of Lines 13, 26, 39 and 52.

Line 54—Toll Concentrates Processed. Report for each year the total quantity of toll concentrates processed.

Lines 55 to 58—Customer Toll Revenues. Report for each year the quantity of toll concentrates processed for unaffiliated customers (Line 55), total operating revenues derived from this processing (Line 56), average price charged per ton of concentrate processed (Line 57=Line 56/55) and the average quality rating assigned to toll concentrates processed for unaffiliated customers (Line 58).

Lines 59 to 62—Affiliated Customer Toll Revenues. Report for each year the quantity of toll concentrates processed for affiliated customers (Line 59), total operating revenues derived from such processing (Line 60), average price charged per ton of concentrate processed (Line 61=Line 60/59) and the average quality rating (Line 62) assigned to toll concentrates processed for affiliated customers.

Line 63—Tolling Service Revenues. Enter for each year the total of amounts reported on Lines 56 and 60.

Line 64—Transfer Price Adjustments. Report for each year operating revenue adjustments required to equate affiliated customer transfer prices with market prices charged to unaffiliated customers on the smelter's tolling services. Attach as part of Exhibit B an explanation of the method used for restating transfer prices where such adjustments are necessary.

Line 65—Other Revenue Adjustments. Report for each year other adjustments applicable to the smelter's tolling service revenues. Attach as part of Exhibit B a schedule reporting the types and amounts of such adjustments.

Line 66—Adjusted Tolling Service Revenues. Enter for each year the total of Lines 63 through 65.

Line 67—Co-Product Revenues. Report for each year the net revenues from sales of co-products derived from the smelter's operations. Attach as part of Exhibit B a schedule showing by individual type of co-product, the quantity produced and sold, market price per unit of sales and total revenues derived from the co-product sales.

Line 68—Pollution Control By-product Revenues. Report for each year revenues from the sale of by-products derived from operation of the smelter's pollution control facilities. Attach as part of Exhibit B a schedule showing by type of by-product produced, the quantity of output, market price received per unit of output sold and total revenue derived from the by-product sales.

Line 69—Other By-product Revenues. Report for each year revenues from the sales of gold, silver and other by-products derived from the smelter's operations. Attach as part of Exhibit B a schedule providing additional documentation as specified in the instruction for Line 68.

Line 70—Total Co-product and By-product Revenues. Enter for each year the total of Lines 67 through 69.

Schedule A.2—Historical Cost Data

General. Use Schedule A.2 to report annual historical cost and input quantities for smelter operations for fiscal years 1979 through 1983. The line items in Schedule A.2 are explained in the following instructions.

Line 01—Total Quantity Purchased. Report for each year the total quantity of concentrates purchased by the smelter. This will be sum of Lines 02 and 06. Do not include the quantity of toll concentrates.

Line 02—Quantity Purchased. Report for each year the total quantity of concentrates purchased from unaffiliated suppliers by the smelter. Attach as a part of Exhibit B a description of the types and grades of these concentrates. Do not include the quantity of toll concentrates.

Line 03—Concentrate Cost. Report for each year the outlays paid to unaffiliated suppliers for concentrates. Attach as part of Exhibit B an explanation of the method(s) used in determining these outlays and relationship between concentrate prices and the types and grades of concentrates purchased from unaffiliated suppliers.

Line 04—Average Unit Price. Report for each year the average unit price paid for purchases of concentrates from unaffiliated suppliers. Generally, this value will be equivalent to Line 03 divided by Line 02. If this equivalency does not hold, attach as a part of Exhibit B an explanation of the variance.

Line 05—Average Concentrate Grade. Report for each year the average concentrate grade of concentrates purchased from unaffiliated suppliers. Attach as part of Exhibit B an explanation of this average. The average should correspond to the average price reported in Line 04.

Line 06—Quantity Purchased. Report for each year the total quantity of concentrates purchased from affiliated suppliers by the smelter. Attach as part of Exhibit B a description of the types and grades of these concentrates. Do not include the quantity of toll concentrates.

Line 07—Concentrate Cost. Report for each year the actual outlays paid to affiliated

suppliers for concentrates. Attach as part of Exhibit B an explanation of the method(s) used in determining these outlays and relationship between concentrate prices and the types and grades of concentrates purchased from affiliated suppliers. Do not reflect any adjustments to market prices here.

Line 08—Average Unit Price. Report for each year the average unit price paid for purchases of concentrates from affiliated suppliers. Generally, this value will be equivalent to Line 07 divided by Line 06. If this equivalency does not hold, attach as part of Exhibit B an explanation of the variance.

Line 09—Average Concentrate Grade. Report for each year the average concentrate grade of concentrates purchased from affiliated suppliers. Attach as part of Exhibit B an explanation of this average. The average should correspond to the average price reported in Line 08.

Line 10—Total Concentrate Cost. Enter for each year the sum of Lines 03 and 07.

Line 11—Transfer Price Adjustments. Enter for each year the amounts required to adjust outlays paid to affiliated suppliers to market value. Refer to Section 2.2 for instructions on the restatement of affiliated party transactions. Attach as part of Exhibit B a description and the computations of any required cost adjustments.

Line 12—Other Cost Adjustments. Enter for each year the amounts of any other cost adjustments required such as freight or allowances. Attach as part of Exhibit B the identification and the derivation of these adjustments.

Line 13—Adjusted Concentrate Cost. Enter for each year the adjusted concentrate cost reflecting the adjustments reported in Lines 11 and 12.

Line 14—Direct Labor Hours. Report for each year the quantity of direct labor hours required to support the processing levels previously reported. Attach as part of Exhibit B an explanation of the labor productivity factor involved.

Line 15—Average Hourly Wage Rate. Report for each year the average wage rate paid per unit of direct labor input. Attach as part of Exhibit B a description of direct labor costs factors under existing labor contracts and an explanation of the method(s) used to determine wage rates.

Line 16—Total Wage Payments. Enter for each year the product of Lines 14 and 15.

Line 17—Supplemental Employee Benefits. Report adjustments required to direct labor costs for other employee compensation under supplemental benefit plans. Attach as part of Exhibit B a description of such plans and their costs and an explanation of the method(s) used to determine such costs.

Line 18—Total Production Labor Cost. Enter for each year the total of Lines 16 and 17.

Lines 19, 22, 25, 28 and 31—Energy Quantities. Report for each year the quantity of energy by type required to support the processing levels reported in the smelter's revenue. Attach as part of Exhibit B, an explanation of energy use factors and qualities considered in determining the smelter's energy requirements.

Lines 20, 23, 26, 29 and 32—Unit Prices. Report for each year a price paid per unit of energy input by type of energy. Attach as part of Exhibit B, a description of the energy price factors under existing energy contracts and an explanation of the method(s) used to determine unit energy prices.

Lines 21, 24, 27, 30 and 33—Total Payments. Enter for each year the products of quantity and prices paid for electricity (Lines 19×20), natural gas (Lines 22×23), coal (Lines 25×26), fuel oil (Lines 28×29), and other (Lines 31×32).

Line 34—Total Energy Costs. Enter for each year the total of Lines 21, 24, 27, 30 and 33.

Schedule A.3—Historical Profit and Loss Summary

General. Use Schedule A.3 to report annual revenues, cost and income taxes assignable to operation of the smelter subject to this NSO application for fiscal years 1979 through 1983. Assignable revenues and costs should include only the results of transactions either (1) directly associated with smelter operations or (2) for which the applicant can establish a causal and beneficial relationship with smelter operations pursuant to instructions in Section 2.1. The line items in Schedule A.3 are explained in the following instructions.

Line 01—Primary Metal Sales. Enter the totals reported in Schedule A.1, Line 40.

Line 02—Co-Product and By-Product Sales. Report for each year annual revenues, net or returns and allowances, derived from smelter sales and/or transfers of co-products and by-products to both unaffiliated and affiliated customers. Attach as part of Exhibit B a supporting schedule for each major co-product and by-product component of smelter revenues. Segregate the revenues reported by major co-product and by-product components into their unaffiliated customer and affiliated customer elements. Report for each component's unaffiliated and affiliated customer revenue elements the (1) average grade of product sold, (2) actual quantity sold, (3) average price per unit, and (4) total smelter revenues. Also show for each product line any adjustments required to restate transfer prices and explain the basis for such adjustments. Refer to Section 2.2 for instructions on the restatement of affiliated customer revenues.

Line 03—Tolling Service Revenues. Enter the totals reported in Schedule A.1, Line 53.

Line 04—Other Operating Revenues. Report for each year annual revenues directly associated with smelter operations that have not previously been reported on Lines 01 through 03. Attach as part of Exhibit B a schedule

showing the types and amounts of sales reported as other operating revenue. The following non-operating revenue and income items should *not* be included as other operating revenue or as a part of revenues reported on Lines 01 through 03.

Royalties, licensing fees and other income from intangibles.
Interest and dividend income on portfolio investments.
Equity in income (loss) of unconsolidated subsidiaries and affiliates.
Gain (loss) from discontinued operations and disposal of property.
Minority interest adjustment to consolidated subsidiary income.
Extraordinary items.

Line 05—Total Operating Revenue. Enter for each year the total of Lines 01 through 04.

Line 06—Concentrates Processed. Report the cost of concentrates processed and sold or transferred to unaffiliated and affiliated customers from Schedule A.2, Line 13. Concentrates purchased from unaffiliated suppliers should be valued at the actual prices paid. Concentrates purchased from affiliated suppliers should be valued at or, if necessary, restated to equivalent prices quoted by unaffiliated suppliers. If prices used to report revenues are c.i.f. and concentrate costs are f.o.b. smelter, all transportation charges paid on the smelter's or buyer's account should be excluded from smelter expense. Attach as part of Exhibit B supporting schedules showing the:

Annual value of concentrate purchases classified according to purchases from unaffiliated and affiliated suppliers.
Cost of sales adjustments to concentrate purchases for net annual additions to or withdrawals from concentrate inventories, freight-in on concentrate purchases and inventory spoilage.
Impact on cost of sales for restating, where applicable, the cost of concentrate purchases from affiliated suppliers to the equivalent prices paid to unaffiliated suppliers.
Volumes, grades and net prices of concentrate purchases from unaffiliated and affiliated suppliers by type of concentrate purchased.
Volumes, grades and net prices associated with toll concentrates processed by type of concentrate.

Line 07—Other Materials Costs. Report for each year annual costs incurred for flux, refractories, coke and other materials used by the smelter in its processing of concentrates. Materials purchased from unaffiliated suppliers should be valued at the actual prices paid after adjustment for transportation costs incurred. Materials purchased from affiliated suppliers should be valued at or, if necessary, restated to equivalent prices quoted by unaffiliated suppliers. Include in Exhibit B supporting schedules showing the:

Annual value of material purchases classified according to purchases from unaffiliated and affiliated suppliers.
Cost of sales adjustments to material purchases for net annual additions to or withdrawals from material inventories, freight costs on material purchases and inventory loss.
Impact on cost of sales for restating, where applicable, the costs of material purchases from affiliated suppliers to equivalent prices paid to unaffiliated suppliers.
Classification of other material costs by major cost factors for each cost component that exceeds 20 percent of any line item in the cost of sales schedule.

Line 08—Production Labor Costs. Report for each year total direct labor costs incurred by the smelter for processing purchased and toll concentrates, Schedule A.2, Line 18. Include in Exhibit B supporting schedules showing the:

Manhours and wage rates for major labor classifications.
Potential impact on wage rates of provision in the smelter's current labor contracts.
Explanation of major variances observed in direct labor costs over the five-year period as a result of factors such as strikes or new labor contracts.

Line 09—Energy Costs. Enter the totals reported in Schedule A.2, Line 34.

Line 10—Pollution Control Costs. Report for each year expenses incurred for operating and maintaining pollution control facilities. All by-product credits associated with pollution control facility operations should be eliminated and reported on Line 02. Depreciation and amortization charges against the smelter's pollution control facilities should be reported separately on Line 18. Attach as part of Exhibit B supporting schedules showing the:

Major pollution control cost elements with their values classified according to direct and indirect cost factors.
Techniques used to allocate indirect pollution control costs to major cost pools.

Line 11—Production Overhead. Report for each year the total costs for indirect labor, indirect materials and other production overhead costs associated with the smelter. Attach as part of Exhibit B a schedule showing annual overhead costs by major cost components associated with the smelter's operations. For each cost component, where appropriate, identify the quantity and unit price element of overhead costs.

Line 12—Other Production Costs. Report for each year annual smelter overhead and other production costs not previously reported on Lines 06 through 11. By-product credits, if any, should be eliminated and reported on

Line 02 as operating revenues. Attach as part of Exhibit B supporting schedules showing the:

Major cost elements classified according to direct and indirect production costs.

Disaggregation of major overhead cost components into their fixed and variable cost elements.

Allocation techniques used in assigning indirect overload costs to the major cost components.

Elements of overhead costs represented by purchases from affiliated suppliers and adjustments, if any, required to restate these costs on the basis of equivalent prices paid to unaffiliated supplier.

Line 13—Total Cost of Sales. Enter for each year the total of Lines 06 through 12.

Line 14—Gross Operating Profit. Enter for each year the difference between Lines 05 and 13.

Line 15—Selling, General & Administrative (SG&A) Expenses. Report for each year SG&A expenses attributable to the smelter's annual operating activities. Exclude those operating costs to be reported separately on Lines 16 through 21 and those costs for which causal and beneficial relationships to the smelter cannot be established. Attach as part of Exhibit B supporting schedules (1) segregating SG&A expenses by major expense components, (2) classifying the major expense components according to those costs incurred directly by smelter operations and costs allocated to the smelter from indirect cost pools, and (3) explaining the basis used for indirect cost allocations.

Line 16—Taxes, Other Than Income Tax. Report for each year all taxes (exclusive of Federal, State, local and foreign income taxes) assignable to the smelter's operations. Attach as part of Exhibit B, a schedule that (1) segregates these operating taxes by major component, (2) classifies each component according to direct and indirect cost elements, and (3) explains the basis used for indirect cost allocations.

Line 17—Research Costs. Report for each year research costs (exclusive of capitalized costs reported in Schedule A.4) that are assignable to the smelter's annual operations. Attach as part of Exhibit B a schedule (1) segregating exploration and research costs by major expense components, (2) classifying each expense component according to direct and indirect cost elements, and (3) explaining the basis used for indirect cost allocations.

Line 18—Pollution Control Depreciation and Amortization. Report for each year annual depreciation and amortization charges attributable to the smelter's investment in pollution control facilities and equipment. Reported charges should be computed in accordance with depreciation and amortization methods adopted for tax reporting purposes by the firm. Attach explanatory supporting schedules as part of Exhibit B.

Line 19—Other Facility Depreciation and Amortization. Report for each year annual depreciation and amortization charges (exclusive of charges reported on Line 18) assignable to the smelter's operations. Attach explanatory supporting schedules as part of Exhibit B.

Line 20—Interest on Short-Term Debt. Report for each year interest expense and associated financial charges on current liabilities in accordance with the assignment instructions in Section 2.1. Do not include interest on the portion of long-term debt due within the current year for each reporting period.

Line 21—Miscellaneous Operating Expenses. Report for each year any additional expenses assignable to the smelter's annual operations. Attach as part of Exhibit B a schedule (1) segregating these additional expenses into major expense components, (2) classifying each expense component according to costs incurred directly by the smelter and costs allocated to the smelter from indirect cost pools, and (3) explaining the basis used for indirect cost allocations.

Line 22—Total Other Operating Expenses. Enter for each year the total of Lines 15 through 21.

Line 23—Income from Operations. Enter for each year the difference between Lines 14 and 22.

Line 24—Gain/(Loss) from Disposition of Property. Report net gains or losses recognized during each year from disposition of property, plant and equipment. Report such gains or losses in accordance with the firm's normal practice for certified financial statement reporting. If such gains or losses are not significant and are classified otherwise, no reclassification need be made. A note to this effect must be included in Exhibit B.

Line 25—Miscellaneous Income and Expenses. Report minority interest in income, foreign currency translation effects, and other nonoperating income and expenses directly assignable to the smelter and not recognized elsewhere on this schedule. Report such items in accordance with the accounting methods used for certified financial reporting purposes.

Line 26—Total Other Income and Expenses. Enter for each year the sum of Lines 24 and 25.

Line 27—Net Taxable Income. Enter for each year the difference between Lines 23 and 26.

Schedule A.4—Historical Capital Investment Summary

General. Use Schedule A.4 to report annual end-of-period asset investments and current liabilities for fiscal years 1979 through 1983. These figures must correspond with the revenues and costs associated with operation of the smelter subject to this NSO application as reported in Schedule A.3.

The amounts assigned to the subject smelter should include both (1) investments and liabilities directly identifiable with the smelter's operating activities and (2) asset investments shared with other segments to the extent that a specific causal and beneficial relationship can be established for the intersegment allocation of such investments. Do not allocate to the smelter the costs of assets maintained for general corporate purposes. Provide a detailed explanation of amounts classified as nontraceable on a separate schedule and attach as part of Exhibit B.

Applicants shall also restate trade receivables and payables for transfer price adjustments on the smelter's transactions with affiliated customers. The line items in Schedule A.4 are explained in the following instructions.

Line 01—Cash on Hand and Deposit. Report for each year total cash balances assignable to the smelter's operations at the end of each year on the basis of causal and beneficial relationships with total corporate activities. Attach as part of Exhibit B in explanation of the basis used for allocation.

Line 02—Temporary Cash Investments. Report for each year temporary cash investments in time deposits or other short-term securities. Include only those investments either held by the smelter to meet current-period tax payments or other budgeted expenditures specifically identifiable with the smelter's continued operation. Exclude any temporary cash investments for which no specific future outlay requirement can be identified.

Attach as part of Exhibit B a schedule classifying temporary cash investments according to identifiable budgeted expenditure requirements.

Lines 03 and 04—Net Trade Receivables. Report for each year trade accounts and notes, net of reserves for uncollectible items, assignable to the smelter in relation to its unaffiliated (Line 03) and affiliated (Line 04) customer sales and transfers. Trade receivables reported by the smelter as due from affiliated customers should be stated or, if necessary, restated on credit terms equivalent to those received by unaffiliated customers on a sale of comparable products. Attach as part of Exhibit B a schedule showing adjustments in the smelter's receivables investments required to equate trade credit terms extended to affiliated and unaffiliated customers.

Lines 05 and 06—Inventory Investments. Report for each year respective end-of-period investments in raw material, work-in-process and finished good inventories held to support the smelter's production and sale of products (Line 05) and associated inventories of other materials and supplies (Line 06). These inventories must be valued at current market prices. Inventory purchases from affiliated suppliers should also be stated at current market prices or, if necessary, restated at current market prices prevailing on purchases from unaffiliated suppliers. Attach explanatory supporting schedules as part of Exhibit B.

Line 07—Other Current Assets. Report for each year prepaid expenses, deferred charges, non-trade notes and accounts receivable, and other assets classified as current for certified financial statement reporting purposes that are assignable to the smelter's operations. Attach as part of Exhibit B a schedule classifying these other current assets according to their types and amounts.

Line 08—Total Current Assets. Enter for each year the total of Lines 01 through 07.

Lines 09 to 14—Property, Plant and Equipment. Report for each year by individual line item property, plant and equipment investments assignable to smelter operations. Include in gross facility investments at the end of each period both (1) property, plant and equipment directly associated with the smelter's operations and (2) facilities shared with other operating segments to the extent that a causal and beneficial relationship can be established for the inter-segment allocation of such facility investments.

Attach as part of Exhibit B a schedule reporting by individual line item the annual capital expenditures on additional property, plant and equipment investments in the smelter's operations. Further classify these annual capital expenditures into both (1) investments required to maintain the smelter versus investments in smelter expansion and improvement and (2) direct facility versus joint-use facility investments. Explain the method used for allocating capital expenditures on joint-use facilities to the smelter's operations. Refer to Line 17 instructions for additional reporting requirements on the smelter's facility investments.

Line 15—Total Smelter Investment. Enter for each year the total of Lines 09 through 14.

Line 16—Accumulated Depreciation and Amortization. Report for each year accumulated depreciation, amortization and other valuation charges recorded for certified financial statement reporting purposes in relation to smelter investment as reported on Line 15. Other valuation charges are defined in Financial Accounting Standards Board (FASB) Statement No. 19 as losses recognized in connection with an impairment in the value of an unimproved property below its acquisition cost. Refer to Line 17 instructions for additional reporting requirements on smelter facility investments.

Line 17—Net Smelter Investment. Enter for each year the difference between Lines 15 and 16. Attach as part of Exhibit B a schedule classifying gross facility investments, accumulated depreciation, amortization charges, and net facility investments by major pollution control and non-pollution

control components. Identify for each asset component the direct versus joint-use investments assigned to the smelter and explain the basis used to allocate amounts associated with joint-use facilities to the smelter.

Line 18—Other Non-Current Assets. Report for each year other assets assignable to the smelter's operations. Attach as part of Exhibit B a schedule reporting by type and amount the major components of such investments.

Line 19—Total Smelter Capital Investment. Enter for each year the total of Lines 08, 17 and 18.

Line 20 and 21—Trade Accounts and Notes Payable. Report for each year trade accounts and notes due on the smelter's purchases from unaffiliated suppliers (Line 20) and on its intersegment transfers or purchases from affiliated suppliers (Line 21). Trade payables reported by the smelter as due to affiliated suppliers should be stated or, if necessary, restated on terms equivalent to those received from unaffiliated suppliers on a purchase of comparable materials. Attach as part of Exhibit B a schedule showing adjustments required on the smelter's trade payables to equate trade credit terms received from affiliated and unaffiliated suppliers.

Line 22—Other Expense Accruals. Report for each year payments classified as current for salaries and wages, other employee benefits, operating taxes and related operating expenses assignable to the smelter's operations. Attach as part of Exhibit B a schedule classifying by type and amount the major components of such accruals.

Line 23—Current Notes Payable. Report for each year payments due to nontrade creditors on short-term financing arrangements directly associated with the smelter's operations. Exclude current installments due on long-term debt financing arrangements, notes due to offices and directors, intersegment loans or advances and loans or advances from affiliated operating segments.

Line 24—Other Current Liabilities. Report for each year other nontrade payables classified as current obligations assignable to the smelter's operations.

Line 25—Total Current Liabilities. Enter for each year the total of Lines 20 through 24.

Line 26—Net Smelter Capital Investment. Enter for each year the difference between Lines 19 and 25.

Schedule B.1—Pre-Control Revenue Forecast

General. Use Schedule B.1 to report annual forecasts of operating revenues anticipated during the years 1984 through 1990 from operation of the smelter subject to this NSO application. These pre-control revenue projections should be based on revenues and production associated with operating the smelter without any SO_2 air pollution controls that have not been installed as of the NSO application date. Forecast smelter revenues should be expressed on a tolling service equivalent basis as described in Section 2.3.4.

Copper smelters that will process concentrates containing an average of 1,000 pounds per hour or more of arsenic during the forecast period should assume that they will use best engineering techniques to control fugitive emissions of arsenic. All smelters should also assume that they will be required to meet all other regulatory requirements in effect at the time the application is made.

The line items in Schedule B.1 are explained in the following instructions. Attach as part of Exhibit B schedules to (1) explain the methods used to make the required forecasts, (2) explain differences, if any, between historical trends and the forecasts and (3) provide data and information to support the forecasts.

Lines 01 and 05—Concentrates Processed. Report for each year the forecast quantity of concentrates processed for unaffiliated parties (Line 01) and affiliated parties (Line 05).

Lines 02 and 06—Smelting Charge. Report for each year the forecast smelting charge for unaffiliated parties (Line 02) and affiliated parties (Line 06). See Section 2.4 for forecast copper smelting charges furnished by EPA.

Lines 03 and 07—Total Smelter Revenues. Report for each year the forecast total operating revenues derived from processing concentrates. The total for unaffiliated parties (Line 03) is equal to the product of Lines 01, 02, and 04, and for affiliated parties (Line 07), the product of Lines 05, 06, and 08.

Lines 04 and 08—Average Product Grade. Report for each year the forecast average quality rating assigned to concentrates processed for unaffiliated parties (Line 04) and affiliated parties (Line 08).

Line 09—Total Co-Product Revenues. Report for each year the forecast net revenues from sales of co-products derived from the smelter's operations. Attach as part of Exhibit B a schedule showing by individual type of co-product, the forecast quantity produced and sold, forecast market price per unit of sales, and forecast total revenues derived from the co-product sales.

Line 10—Total By-product Revenues From Pollution Control Facilities. Report for each year forecast revenues from the sale of by-products derived from operation of the smelter's pollution control facilities, excluding any SO_2 air pollution controls that have not been installed as of the NSO application date. Attach as part of Exhibit B a schedule showing by type of by-product produced (e.g., sulfuric acid) the forecast quantity of output, forecast market price per unit of output sold, and forecast total revenue derived from the by-product sales.

Line 11—Total By-product Revenues From Other Smelter Processing. Report forecast revenues from the sales of gold, silver, and

other by-products derived from the smelter's operations. Attach as part of Exhibit B a schedule providing additional documentation as specified in the instructions for Line 10.

Line 12—Total Co-product and By-product Revenues. Enter for each year the total of Lines 09 through 11.

Schedule B.2—Pre-Control Cost Forecast

General. Use Schedule B.2 to report annual forecasts of operating costs anticipated during the years 1984 through 1990 from operation of the smelter subject to this NSO application. These pre-control cost projections should be based on costs and production associated with operating the smelter without any SO_2 air pollution controls that have not been installed as of the NSO application date.

Copper smelters that will process concentrates containing an average of 1,000 pounds per hour or more of arsenic during the forecast period should assume that they will use best engineering techniques to control fugitive emissions of arsenic. All smelters should also assume that they will be required to meet all other regulatory requirements in effect at the time the application is made.

The line items in Schedule B.2 are explained in the following instructions. Attach as part of Exhibit B schedules to (1) explain the methods used to make the required forecasts, (2) explain differences, if any, between historical trends and the forecasts, and (3) provide data and information to support the forecasts.

Line 01—Direct Labor Hours. Report for each year the quantity of direct labor hours required to support the processing levels previously reported. Attach as part of Exhibit B an explanation of the labor productivity factors involved.

Line 02—Average Hourly Wage Rate. Report for each year the forecast average wage rate per unit of direct labor input. Attach as part of Exhibit B a description of direct labor cost factors under any existing labor contracts that extend to the forecast period and an explanation of the methodology used to forecast wage rates. EPA-provided forecast wage indices are reported in Section 2.4.

Line 03—Total Wage Payments. Enter for each year the product of Lines 01 and 02.

Line 04—Supplemental Employee Benefits. Report for each year adjustments required to direct labor costs for other employee compensation under supplemental benefit plans. Attach as part of Exhibit B a description of such plans and their costs and an explanation of the methodology used to forecast such costs. EPA-provided forecast wage indices are reported in Section 2.4.

Line 05—Total Production Labor Cost. Enter for each year the total of Lines 03 and 04.

Lines 06, 09, 12, 15 and 18—Energy Quantities. Report for each year the quantity of energy by type required to support the processing levels reported in the smelter's revenue. Attach as part of Exhibit B an explanation of energy characteristics and use factors considered in forecasting the smelter's future energy requirements.

Lines 07, 10, 13, 16, and 19—Unit Prices. Report for each year the forecast price per unit of energy input by type of energy. Attach as part of Exhibit B a description of the energy price factors under any existing energy contracts that extend to the forecast period and an explanation of the methodology used to forecast unit energy prices. EPA-provided forecast energy indices are reported in Section 2.4.

Lines 08, 11, 14, 17, and 20—Total Payments. Enter for each year the products of quantity and prices paid for electricity (Lines 06×07), natural gas (Lines 09×10), coal (Lines 12×13), fuel oil (Lines 15×16), and other (Lines 18×19).

Line 21—Total Energy Costs. Enter for each year the total of Lines 08, 11, 14, 17, and 20.

Schedule B.3—Pre-Control Forecast Profit and Loss Summary

General. Use Schedule B.3 to report annual forecasts of operating revenues and operating costs derived in Schedules B.1 and B.2 for the years 1984 through 1990. The transfer of line items from Schedules B.1 and B.2 to this Schedule is explained in the following instructions.

Line 01—Smelter Revenues-Unaffiliated Parties. Enter the totals reported in Schedule B.1, Line 03.

Line 02—Smelter Revenues-Affiliated Parties. Enter the totals reported in Schedule B.1, Line 07.

Line 03—Co-product and By-product Sales Revenues. Enter the totals reported in Schedule B.1, Line 12.

Line 04—Other Operating Revenues. Report operating revenues anticipated from sources not accounted for under Lines 01 through 03. Refer to instructions for Line 04 of Schedule A.3 for items that should not be included in ''Other Operating Revenues.'' Attach as part of Exhibit B a schedule showing annual amounts forecast by individual revenue component for ''other'' operating revenues associated with the smelter's forecast pre-control operations. Identify in the supporting schedule any differences in the ''other'' revenue components reported in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 05—Total Operating Revenues. Enter for each year the total of Lines 01 through 04.

Line 06—Material Costs. Report total costs forecast for flux, refractories, coke and other materials directly associated with the smelter's processing of concentrates. Attach as part of Exhibit B a schedule showing the annual amounts forecast by major material cost components. For each cost component, identify the forecast quantity and unit price

elements of material cost and explain the basis for forecasting these quantity and price elements. Identify in the supporting schedule any differences in the ''other'' material cost components shown in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 07—Production Labor Costs. Enter the totals reported in Schedule B.2, Line 05.

Line 08—Energy Costs. Enter the totals reported in Schedule B.2, Line 21.

Line 09—Pollution Control Costs. Report the total costs forecast for expenses identifiable with operation and maintenance of all pollution control equipment and facilities except any SO2 air pollution controls that have not been installed as of the NSO application date. By-product credits associated with operation of the pollution control facilities should be eliminated from the cost accounts, reclassified to Schedule B.1, Line 10 and included in Line 03 of this Schedule. Attach a schedule as part of Exhibit B classifying pollution control costs by major cost components. Explain the basis used for estimating each of the cost components.

Line 10—Production Overhead Costs. Report the total costs forecast for indirect labor, indirect materials and other production overhead costs associated with the smelter's operations. Attach as part of Exhibit B a schedule showing annual overhead costs projected by major cost components associated with the smelter's operations. For each cost component, where appropriate, identify the forecast quantity and unit price elements of overhead costs and explain the basis for estimating these quantity and price elements. Also identify in the supporting schedule any differences in production overhead cost classifications used in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 11—Other Production Costs. Report other forecast production costs not previously reported on Lines 06 through 10. Attach as part of Exhibit B supporting schedules showing the basis of the forecasts.

Line 12—Total Cost of Sales. Enter for each year the sum of operating costs reported on Lines 06 through 11.

Line 13—Gross Operating Profit. Enter for each year the difference between Lines 05 and 12.

Line 14—Selling, General and Administrative Expenses. Report the total costs forecast for administrative, marketing and general corporate overhead functions that directly or indirectly support the smelter's operations. Refer to the NSO Financial Reporting Overview for a general discussion of indirect cost allocations from overhead cost pools. Attach as part of Exhibit B a schedule classifying selling, general and administrative expenses into major cost components. Indicate whether each component represents costs directly assignable to the smelter or indirect costs allocated from other business segments to the smelter. Explain the basis used for estimating the amount of expected costs included in each component and the basis used for allocating indirect cost elements to the smelter. Identify and explain any differences between the selling, general and administrative cost classification used in this Schedule and that used in Line 15 of Schedule A.3.

Line 15—Taxes, Other than Income Taxes. Report the total costs forecast for property taxes and associated levies paid to governmental units by or for the benefits of the smelter operation. Attach as part of Exhibit B a schedule classifying operating taxes by major component. Indicate whether each component represents taxes directly assignable to the smelter or taxes that have been allocated among more than one facility. Explain the basis used for estimating taxes and the basis for any allocation of taxes to the smelter. Identify and explain any differences between the component classifications used in this Schedule and those used in Line 16 of Schedule A.3.

Line 16—Research Costs. Report the estimates of research costs incurred directly by or for the benefit of the smelter operations. Attach as part of Exhibit B a schedule classifying the costs by major direct and indirect assigned components. Explain the basis for estimating the costs assigned to each component. Identify and explain any differences between classifications used in this Schedule and those used in Line 17 of Schedule A.3.

Line 17—Pollution Control Facility Depreciation and Amortization. Report the estimates of depreciation and amortization charges associated with the smelter's actual and forecast investment in all pollution control equipment and facilities except any SO_2 air pollution controls that have not been installed as of the NSO application date. Reported charges should be computed in accordance with depreciation and amortization methods adopted for certified financial statement reporting purposes by the firm. Attach explanatory supporting schedules as part of Exhibit B.

Line 18—Other Smelter Facility Depreciation and Amortization. Report the pro forma estimates of depreciation and amortization charges associated with the smelter's investment in equipment and facilities other than those classified as pollution control facilities. Attach explanatory supporting schedules as part of Exhibit B.

Line 19—Interests. Report the estimates of interest and other financing charges on the smelter's current and long-term liabilities. Attach as part of Exhibit B a schedule showing the interest-bearing debt contracts identifiable with the smelter's operations, the interest rate projected for these contracts, and the estimated annual interest charges.

Line 20—Miscellaneous Operating Expenses. Report only the total operating expenses associated with or allocated to the smelter that cannot be appropriately classified in one of the preceding line items. Attach as part of Exhibit B a schedule showing the classification of these residual operating expenses into major cost components. Explain the basis used for forecasting the cost under each component. Identify each cost component in terms of direct or indirect cost and explain the basis used for allocating the indirect costs to smelter operations. Identify and explain any differences between cost classifications included in this Schedule and those used in Line 21 of Schedule A.3.

Line 21—Total Other Operating Expenses. Enter for each year the sum of operating costs reported on Lines 14 through 20.

Line 22—Income From Operations. Enter for each year the difference between Lines 21 and 13.

Schedule B.4—Constant Controls Revenue Forecast

General. Use Schedule B.4 to report annual forecasts of operating revenues anticipated during the years 1984 through 1990 from operation of the smelter subject to this NSO application. These constant controls revenue forecasts should be based on an assumption that the applicant immediately implements a program of additional pollution control facility investments sufficient to achieve full compliance with the smelter's SIP stack emission limitations for sulfur dioxide. Forecast smelter revenues should be expressed on a tolling service equivalent basis as described in Section 2.3.4.

The assumed investment program should be based on whichever adequately demonstrated system, applicable to the smelter, that would be most economically beneficial subsequent to installation of the system. For this purpose, adequately demonstrated systems include those specified in Section 57.102(b)(1).

Copper smelters that will process concentrates containing an average of 1,000 pounds per hour or more of arsenic during the forecast period should assume that they will use best engineering techniques to control fugitive emissions of arsenic. All smelters should also assume that they will be required to meet all other regulatory requirements in effect at the time the application is made.

The line items in Schedule B.4 are explained in the following instructions. Attach as part of Exhibit B schedules to (1) explain the methods used to make the required forecasts, (2) explain differences, if any, between historical trends and the forecasts, and (3) provide data and information to support the forecasts.

Lines 01 and 05—Concentrates Processed. Report for each year the forecast quantity of concentrates processed for unaffiliated parties (Line 01) and affiliated parties (Line 05).

Lines 02 and 06—Smelting Charge. Report for each year the forecast smelting charge for unaffiliated parties (Line 02) and affiliated parties (Line 06). See Section 2.4 for forecast copper smelting charges furnished by EPA.

Lines 03 and 07—Total Smelter Revenues. Report for each year the forecast total operating revenues derived from processing concentrates. The total for unaffiliated parties (Line 03) is equal to the product of Lines 01, 02, and 04, and for affiliated parties (Line 07), the product of Lines 05, 06, and 08.

Lines 04 and 08—Average Product Grade. Report for each year the forecast average quality rating assigned to concentrates processed for unaffiliated parties (Line 04) and affiliated parties (Line 08).

Line 09—Total Co-Product Revenues. Report for each year the forecast net revenues from sales of co-products derived from the smelter's operations. Attach as part of Exhibit B a schedule showing by individual type of co-product, the forecast quantity produced and sold, forecast market price per unit of sales, and forecast total revenues derived from the co-product sales.

Line 10—Total By-product Revenues From Pollution Control Facilities. Report for each year forecast revenues from the sale of by-products derived from operation of the smelter's pollution control facilities. Attach as part of Exhibit B a schedule showing by type of by-product produced (e.g., sulfuric acid) the forecast quantity of output, forecast market price per unit of output sold, and forecast total revenue derived from the by-product sales.

Line 11—Total By-product Revenues From Other Smelter Processing. Report forecast revenues from the sales of gold, silver, and other by-products derived from the smelter's operations. Attach as part of Exhibit B a schedule providing additional documentation as specified in the instructions for Line 10.

Line 12—Total Co-product and By-product Revenues. Enter for each year the total of Lines 09 through 11.

Schedule B.5—Constant Controls Cost Forecast

General. Use Schedule B.5 to report annual forecasts of operating costs anticipated during the years 1984 through 1990 from operation of the smelter subject to this NSO application. These constant controls cost forecasts should be based on an assumption that the applicant immediately implements a program of additional pollution control facility investments sufficient to achieve full compliance with the smelter's SIP stack emission limitations for sulfur dioxide.

The assumed investment program should be based on whichever adequately demonstrated system, applicable to the smelter,

would be most economically beneficial subsequent to installation of the system. For this purpose, adequately demonstrated systems include those specified in §57.102(b)(1).

Copper smelters that will process concentrates containing an average of 1,000 pounds per hour or more of arsenic during the forecast period should assume that they will use best engineering techniques to control fugitive emissions of arsenic. All smelters should also assume that they will be required to meet all other regulatory requirements in effect at the time the application is made.

The line items in Schedule B.5 are explained in the following instructions. Attach as part of Exhibit B schedules to (1) explain the methods used to make the required forecasts, (2) explain differences, if any, between historical trends and the forecasts, and (3) provide data and information to support the forecasts.

Line 01—Direct Labor Hours. Report for each year the quantity of direct labor hours required to support the processing levels previously reported. Attach as part of Exhibit B an explanation of the labor productivity factors involved.

Line 02—Average Hourly Wage Rate. Report for each year the forecast average wage rate per unit of direct labor input. Attach as part of Exhibit B a description of direct labor cost factors under any existing labor contracts that extend to the forecast period and an explanation of the methodology used to forecast wage rates. EPA-provided forecast wage indices are reported in Section 2.4.

Line 03—Total Wage Payments. Enter for each year the product of Lines 01 and 02.

Line 04—Supplemental Employee Benefits. Report for each year adjustments required to direct labor costs for other employee compensation under supplemental benefit plans. Attach as part of Exhibits B a description of such plans and their costs and an explanation of the methodology used to forecast such costs. EPA-provided forecast wage indices are reported in Section 2.4.

Lines 05—Total Production Labor Cost. Enter for each year the total of Lines 03 and 04.

Lines 06, 09, 12, 15 and 18—Energy Quantities. Report for each year the quantity of energy by type required to support the processing levels reported in the smelter's revenue. Attach as part of Exhibit B an explanation of energy characteristics and use factors considered in forecasting the smelter's future energy requirements.

Lines 07, 10, 13, 16, and 19—Unit Prices. Report for each year the forecast price per unit of energy input by type of energy. Attach as part of Exhibit B a description of the energy price factors under any existing energy contracts that extend to the forecast period and an explanation of the methodology used to forecast unit energy prices. EPA-provided forecast energy indices are reported in Section 2.4.

Lines 08, 11, 14, 17, and 20—Total Payments. Enter for each year the products of quantity and prices paid for electricity (Lines 06×07), natural gas (Lines 09×10), coal (Lines 12×13), fuel oil (Lines 15×16), and other (Lines 18×19).

Lines 21—Total Energy Costs. Enter for each year the total of Lines 08, 11, 14, 17, and 20.

Schedule B.6—Constant Controls Forecast Profit and Loss Summary for the Profit Protection Test

General. Use Schedule B.6 to report annual forecasts of operating revenues and operating costs derived in Schedules B.4 and B.5 for the years 1984 through 1990. These constant controls forecasts should be based on an assumption that the applicant immediately implements a program of additional pollution control facility investments sufficient to achieve full compliance with the smelter's SIP stack emission limitations for sulfur dioxide. The transfer of line items from Schedules B.4 and B.5 to this Schedule is explained in the following instructions.

Line 01—Smelter Revenues-Unaffiliated Parties. Enter the totals reported in Schedule B.4, Line 03.

Line 02—Smelter Revenues-Affiliated Parties. Enter the totals reported in Schedule B.4, Line 07.

Line 03—Co-product and By-product Sales Revenues. Enter the totals reported in Schedule B.4, Line 12.

Line 04—Other Operating Revenues. Report operating revenues anticipated from sources not accounted for under Lines 01 through 03. Refer to instructions for Line 04 of Schedule A.3 for items that should not be included in ''Other Operating Revenues.'' Attach as part of Exhibit B a schedule showing annual amounts forecast by individual revenue component for ''other'' operating revenues associated with the smelter's forecast constant controls operations. Identify in the supporting schedule any differences in the ''other'' revenue components reported in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 05—Total Operating Revenues. Enter for each year the total of Lines 01 through 04.

Line 06—Material Costs. Report total costs forecast for flux, refractories, coke and other materials directly associated with the smelter's processing of concentrates. Attach as part of Exhibit B a schedule showing the annual amounts forecast by major material cost components. For each cost component, identify the forecast quantity and unit price elements of material cost and explain the basis for forecasting these quantity and price elements. Identify in the supporting schedule any differences in the ''other'' material cost components shown in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 07—Production Labor Costs. Enter the totals reported in Schedule B.5, Line 05.

Line 08—Energy Costs. Enter the totals reported in Schedule B.5, Line 21.

Line 09—Pollution Control Costs. Report the total costs forecast for expenses identifiable with operation and maintenance of all pollution control equipment and facilities. Byproduct credits associated with operation of the pollution control facilities should be eliminated from the cost accounts, reclassified to Schedule B.4, Line 10 and included in Line 03 of this Schedule. Attach a schedule as part of Exhibit B classifying pollution control costs by major cost components. Explain the basis used for estimating each of the cost components.

Line 10—Production Overhead Costs. Report the total costs forecast for indirect labor, indirect materials and other production overhead costs associated with the smelter's constant controls forecasts. Attach as part of Exhibit B a schedule showing annual overhead costs projected by major cost components associated with the smelter's operations. For each cost component, where appropriate, identify the forecast quantity and unit price elements of overhead costs and explain the basis for estimating these quantity and price elements. Also identify in the supporting schedule any differences in production overhead cost classifications used in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 11—Other Production Costs. Report other forecast production costs not previously reported on Lines 06 through 10. Attach as part of Exhibit B supporting schedules showing the basis of the forecasts.

Line 12—Total Cost of Sales. Enter for each year the sum of operating costs reported on Lines 06 through 11.

Line 13—Gross Operating Profit. Enter for each year the difference between Lines 05 and 12.

Line 14—Selling, General and Administrative Expenses. Report the total costs forecast for administrative, marketing and general corporate overhead functions that directly or indirectly support the smelter's operations. Refer to the NSO financial Reporting Overview for a general discussion of indirect cost allocations from overhead cost pools. Attach as part of Exhibit B a schedule classifying selling, general and administrative expenses into major cost components. Indicate whether each component represents costs directly assignable to the smelter or indirect costs allocated from other business segments to the smelter. Explain the basis used for estimating the amount of expected costs included in each component and the basis used for allocating indirect cost elements to the smelter. Identify and explain any differences between the selling, general and administrative cost classification used in this Schedule and that used in Line 15 of Schedule A.3.

Line 15—Taxes, Other than Income Taxes. Report the total costs forecast for property taxes and associated levies paid to governmental units by or for the benefit of the smelter operation. Attach as part of Exhibit B a schedule classifying operating taxes by major component. Indicate whether each component represents taxes directly assignable to the smelter or taxes that have been allocated among more than one facility. Explain the basis used for estimating taxes and the basis for any allocation of taxes to the smelter. Identify and explain any differences between the component classifications used in this Schedule and those used in Line 16 of Schedule A.3.

Line 16—Research Costs. Report the estimates of research costs incurred directly by or for the benefit of the smelter operations. Attach as part of Exhibit B a schedule classifying the costs by major direct and indirect cost components. Explain the basis for estimating the costs assigned to each component. Identify and explain any differences between classifications used in this Schedule and those used in Line 17 of Schedule A.3.

Line 17—Pollution Control Facility Depreciation and Amortization. Report the estimates of depreciation and amortization charges associated with the smelter's actual and forecast investment in all pollution control equipment and facilities. Reported charges should be completed in accordance with depreciation and amortization methods adopted for certified financial statement reporting purposes by the firm. Attach explanatory supporting schedules as part of Exhibit B.

Line 18—Other Smelter Facility Depreciation and Amortization. Report the pro forma estimates of depreciation and amortization charges associated with the smelter's investment in equipment and facilities other than those classified as pollution control facilities. Attach explanatory supporting schedules as part of Exhibit B.

Line 19—Interest. Report the estimates of interest and other financing charges on the smelter's current and long-term liabilities. Attach as part of Exhibit B a schedule showing the interest-bearing debt contracts identifiable with the smelter's operations, the interest rate projected for these contracts, and the estimated annual interest charges.

Line 20—Miscellaneous Operating Expenses. Report only the total operating expenses associated with or allocated to the smelter that cannot be appropriately classified in one of the preceding line items. Attach as part of Exhibit B a schedule showing the classification of these residual operating expenses into major cost components. Explain the basis used for forecasting the cost under each component. Identify each cost component in terms of direct or indirect cost and explain the basis used for allocating the indirect costs to smelter operations. Identify and

explain any differences between cost classifications included in this Schedule and those used in Line 21 of Schedule A.3.

Line 21—Total Other Operating Expenses. Enter for each year the sum of operating costs reported on Lines 14 through 20.

Line 22—Income From Operations. Enter for each year the difference between Lines 21 and 13.

Schedule B.7—Profit Protection Test

General. Applicants must complete this Schedule and/or Schedule C.4 and the accompanying schedules if they seek eligibility for an NSO. The line items in Schedule B.7 are explained in the following instructions.

Line 01—Net Income from Operations. Enter for each year the amounts reported in Schedule B.3, Line 22.

Line 02—Discount Factors. Enter the discount factor for each year, computed as described in the instructions under Section 2.6.

Line 03—Present Value of Future Net Income. Enter for each year the product of Lines 01 and 02.

Line 04—Horizon Value. Enter under the Total column, the estimated horizon value of the smelter. This shall be computed by capitalizing the forecast net income from operations in Line 01 as described in the instructions under Section 2.7.

Line 05—Discount Factor. Enter under the Total column the appropriate discount factor corresponding to the weighted cost of capital, computed as described in the instructions under Section 2.6.

Line 06—Present Value of Horizon Value. Enter under the Total column the product of Lines 04 and 05.

Line 07—Present Value of Future Net Income. Enter under the Total Column the sum of amounts previously reported on Line 03 for 1984 through 1990.

Line 08—Total Present Value. Enter for each year the sum of Lines 06 and 07.

Line 09—Net Income from Operations. Enter for each year the amount reported in Schedule B.6, Line 22.

Line 10—Discount Factors. Follow the instructions for Line 02.

Line 11—Present Value of Future Net Income. Enter for each year the product of Lines 09 and 10.

Line 12—Horizon Value. Enter under the Total column, the estimated horizon value of the smelter. This shall be computed by capitalizing the forecast net income from operations in Line 09 as described in the instructions under Section 2.7.

Line 13—Discount Factor. Follow the instructions for Line 05.

Line 14—Present Value of Horizon Value. Enter under the Total column the product of Lines 12 and 13.

Line 15—Present Value of Future Net Income. Enter under the Total column the sum of amounts previously reported on Line 11 for 1984 through 1990.

Line 16—Total Present Value. Enter the sum of Lines 14 and 15.

Line 17—Ratio for Total Present Value of Constant Controls Case to Total Present Value of Pre-Control Case. Enter the ratio of Lines 16 to 08. If this ratio is less than .50, the smelter passes the Profit Protection Test. An applicant also passes the Profit Protection Test if the reported total present value of pre-tax profits for the pre-control case on Line 08 is a negative value.

Schedule C.1—Constant Controls Forecast Profit and Loss Summary for the Rate of Return Test

General. Use Schedule C.1 to report forecast revenue and cost information derived in Schedules B.4 and B.5 for the years 1984 through 1990. These constant controls forecasts should be based on an assumption that the applicant immediately implements a program of additional pollution control facility investments sufficient to achieve full compliance with the smelter's SIP stack emission limitations for sulfur dioxide. The transfer of line items from Schedules B.4 and B.5 to this Schedule is explained in the following instructions.

Line 01—Smelter Revenues-Unaffiliated Parties. Enter the totals reported in Schedule B.4, Line 03.

Line 02—Smelter Revenues-Affiliated Parties. Enter the totals reported in Schedule B.4, Line 07.

Line 03—Co-product and By-product Sales Revenues. Enter the totals reported in Schedule B.4, Line 12.

Line 04—Other Operating Revenues. Report operating revenues anticipated from sources not accounted for under Lines 01 through 03. Refer to instructions for Line 04 of Schedule A.3 for items that should not be included in ''Other Operating Revenues.'' Attach as part of Exhibit B a schedule showing annual amounts forecast by individual revenue component for ''other'' operating revenues associated with the smelter's forecast constant controls operations. Identify in the supporting schedule any differences in the ''other'' revenue components reported in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 05—Total Operating Revenues. Enter for each year the total of Lines 01 through 04.

Line 06—Material Costs. Report total costs forecast for flux, refractories, coke and other materials directly associated with the smelter's processing of concentrates. Attach as part of Exhibit B a schedule showing the annual amounts forecast by major material cost components. For each cost component, identify the forecast quantity and unit price elements of material cost and explain the basis for forecasting these quantity and price elements. Identify in the supporting schedule

any differences in the ''other'' material cost components shown in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 07—Production Labor Costs. Enter the totals reported in Schedule B.5, Line 05.

Line 08—Energy Costs. Enter the totals reported in Schedule B.5, Line 21.

Line 09—Pollution Control Costs. Report the total costs forecast for expenses identifiable with operation and maintenance of all pollution control equipment and facilities. By-product credits associated with operation of the pollution control facilities should be eliminated from the cost accounts, reclassified to Schedule B.4, Line 10 and included in Line 03 of this Schedule. Attach a schedule as part of Exhibit B classifying pollution control costs by major cost components. Explain the basis used for estimating each of the cost components.

Line 10—Production Overhead Costs. Report the total costs forecast for indirect labor, indirect materials and other production overhead costs associated with the smelter's constant controls forecasts. Attach as part of Exhibit B a schedule showing annual overhead costs projected by major cost components associated with the smelter's operations. For each cost component, where appropriate, identify the forecast quantity and unit price elements of overhead costs and explain the basis for estimating these quantity and price elements. Also identify in the supporting schedule any differences in production overhead cost classifications used in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 11—Other Production Costs. Report other forecast production costs not previously reported on Lines 06 through 10. Attach as part of Exhibit B supporting schedules showing the basis of the forecasts.

Line 12—Total Cost of Sales. Enter for each year the sum of operating costs reported on Lines 06 through 10.

Line 13—Gross Operating Profit. Enter for each year the difference between Lines 05 and 12.

Line 14—Selling, General and Administrative Expenses. Report the total costs forecast for administrative, marketing and general corporate overhead functions that directly or indirectly support the smelter's operations. Refer to the NSO Financial Reporting Overview for a general discussion of indirect cost allocations from overhead cost pools. Attach as part of Exhibit B a schedule classifying selling, general and administrative expenses into major cost components. Indicate whether each component represents costs directly assignable to the smelter or indirect costs allocated from other business segments to the smelter. Explain the basis used for estimating the amount of expected costs included in each component and the basis used for allocating indirect cost elements to the smelter. Identify and explain any differences between the selling, general and administrative cost classification used in this Schedule and that used in Line 15 of Schedule A.3.

Line 15—Taxes, Other than Income Taxes. Report the total costs forecast for property taxes and associated levies paid to governmental units by or for the benefit of the smelter operation. Attach as part of Exhibit B a schedule classifying operating taxes by major component. Indicate whether each component represents taxes directly assignable to the smelter or taxes that have been allocated among more than one facility. Explain the basis used for estimating taxes and the basis for any allocation of taxes to the smelter. Identify and explain any differences between the component classifications used in this Schedule and those used in Line 16 of Schedule A.3.

Line 16—Research Costs. Report the estimates of research costs incurred directly by or for the benefit of the smelter operations. Attach as part of Exhibit B a schedule classifying the costs by major direct and indirect costs components. Explain the basis for estimating the costs assigned to each component. Identify and explain any differences between classifications used in this Schedule and those used in Line 17 of Schedule A.3.

Line 17—Pollution Control Facility Depreciation and Amortization. Report the estimates of depreciation and amortization charges associated with the smelter's actual and forecast investment in all pollution control equipment and facilities. Reported charges should be computed in accordance with depreciation and amortization methods adopted for tax reporting purposes by the firm. Attach explanatory supporting schedules as part of Exhibit B.

Line 18—Other Smelter Facility Depreciation and Amortization. Report the pro forma estimates of depreciation and amortization charge associated with the smelter's investment in equipment and facilities other than those classified as pollution control facilities. Attach explanatory supporting schedules as part of Exhibit B.

Line 19—Interest on Short-Term Debt. Report the estimates of interest and other financing charges on forecast short-term obligations as classified in the smelter's current liabilities on Schedule A.4. Interest and associated financing charges on long-term debt should not be included as an expense identifiable with the smelter's operations. Attach as part of Exhibit B a schedule showing the interest-bearing, short-term debt contracts identifiable with the smelter's operations, the interest rate projected for these contracts, and the estimated annual interest charges. Identify and explain any differences between the classifications used in this Schedule and those used in Line 20 of Schedule A.3.

Line 20—Miscellaneous Operating Expenses. Report only the total operating expenses associated with or allocated to the smelter that cannot be appropriately classified in one of the preceding line items. Attach as part of Exhibit B a schedule showing the classification of these residual operating expenses into major cost components. Explain the basis used for forecasting the cost under each component. Identify each cost component in terms of direct or indirect cost and explain the basis used for allocating the indirect costs to smelter operations. Identify and explain any differences between cost classification included in this Schedule and those used in Line 21 of Schedule A.3.

Line 21—Total Other Operating Expenses. Enter for each year the sum of operating costs reported on Lines 14 through 20.

Line 22—Income From Operations. Enter for each year the difference between Lines 21 and 13.

Line 23—Income Taxes. Enter the product of income from operations (Line 22) and the sum of the Federal, State and local marginal tax rates. Attach as part of Exhibit B a schedule detailing the estimated marginal tax rate by taxing entity.

Line 24—Net Income From Operations. Enter for each year the difference between Lines 23 and 22.

Schedule C.2—Constant Controls Sustaining Capital Investment Forecast

General. The applicant should estimate and report, in Schedule C.2, yearly sustaining capital outlays for maintenance of the smelter's existing productive capability. These estimates should be forecast under the assumption that full compliance with SIP emission limitations for SO_2 will be achieved. Major elements of these outlays should be disclosed, as well as the total of such outlays. Estimates shall be restricted to those items that will be capitalized for tax purposes. These outlays shall primarily be for plant replacement, although outlays for improvements and expansion may be included to the extent that improvements and/or expansion, exclusive of required pollution control outlays, can be justified as economically feasible. Estimates of sustaining capital shall exclude any incremental investment for constant control requirements. Sustaining capital investments in facilities shared with other operating segments shall be allocated in accordance with the instructions given below.

Estimates of sustaining capital shall be compatible with productive capacity and pollution control requirements underlying the operating revenue and cost forecasts incorporated in Schedule C.1.

Lines 01 to 06—Sustaining Capital. Report for each year by individual line item property, plant and equipment sustaining capital investments assignable to smelter operations. Include both (1) property, plant and equipment directly associated with the smelter's operations and (2) facilities shared with other operating segments to the extent that a causal and beneficial relationship can be established for the intersegment allocations of such facility investments.

Attach as part of Exhibit B an explanatory schedule disclosing and supporting by individual line item the major elements of annual capital expenditures for sustaining capital. Further classify these annual capital expenditures into both (1) investments required to maintain the smelter versus investments in smelter expansion and improvements and (2) direct facility versus joint-use facility investments. Explain the method used for allocating capital expenditures on joint-use facilities to the smelter's operations.

Line 07—Total Smelter Sustaining Capital. Enter for each year the total of Lines 01 through 06. Transfer the reported total for each year to Schedule C.4, Line 06.

Schedule C.3—Historical Capital Investment In Constant Dollars

General. Use Schedule C.3 to report the end-of-period asset investments and current liabilities for the most recent fiscal year: (a) expressed in nominal dollars as of the date of the original transaction, and (b) expressed in the current year's dollars, i.e. 1984 dollars. The value of net investment in constant dollars (1984 dollars for smelters applying for an NSO in 1984) is used in Schedule C.4 as the benchmark of the Rate of Return Test.

Applicants should complete Schedule C.3 according to the following instructions. Transfer into the first column of Schedule C.3 the historical cost figures that are reported in the last (1983) column of Table A.4. In the second column of Schedule C.3, report the figures from the first column of Schedule C.3, expressed in constant (1984) dollars.

Convert each nominal dollar figure of the first column into constant (1984) dollars in accordance with the historical cost/constant dollar accounting method defined in Financial Accounting Standards Board (FASB) Statement No. 33 (Docket Item No. IV-A-6d), with the following exception: the applicant must not report the lower recoverable amount as required by FASB No. 33. Attach explanatory supporting schedules as part of Exhibit B.

Schedule C.4—Rate of Return Test

General. Applicants must complete this Schedule and/or Schedule B.7 and the accompanying schedules if they seek eligibility for an NSO. The line items in Schedule C.4 are explained in the following instructions.

Line 01—Net Income from Operations. Enter for each year the amounts reported in Schedule C.1, Line 24.

Lines 02 and 03—Depreciation and Amortization. Enter for each year the amounts reported in Schedule C.1, Lines 17 and 18, respectively.

Line 04—Operating Cash Flow. Enter for each year the total of amounts reported on Lines 01 through 03.

Line 05—Constant Controls Capital Investment. Enter the estimated capital outlays for constant controls for the years during which outlays would be made. These values shall correspond to the constant control investment estimates shown in the supporting schedules for Line 17 of Schedule C.1. Changes in working capital investment due to investment in constant controls facilities may be added to the capital investment estimates shown in the supporting schedules for Schedule C.1.

Line 06—Sustaining Capital. Enter for each year the amounts reported in Schedule C.2, Line 07.

Line 07—Total. Enter for each year the sum of Lines 05 and 06.

Line 08—Net Cash Flow Projections. Enter for each year the difference between Lines 04 and 07.

Line 09—Discount Factors. Enter the discount factor for each year, computed as described in the instructions under Section 2.6.

Line 10—Present Value of Future Cash Flows. Enter for each year the product of Lines 08 and 09.

Line 11—Horizon Value. Enter under the Total column the estimated horizon value of the smelter reported in Schedule C.5, Line 16.

Line 12—Discount Factor. Enter under the Total column the appropriate discount factor, computed as described in the instructions under Section 2.6.

Line 13—Present Value of Horizon Value. Enter under the Total column the product of Lines 11 and 12.

Line 14—Present Value of Future Cash Flows. Enter under the Total column the sum of amounts previously reported on Line 10 for 1984 through 1990.

Line 15—Total Present Value. Enter the sum of Lines 13 and 14.

Line 16—Net Smelter Capital Investment in Constant Dollars. Enter under the Total column the amount reported in the second (Constant Dollar) column of Schedule C.3, Line 26 if the value is greater than zero. If the value is zero or less, enter zero.

Line 17—Net Present Value. Enter the difference between Lines 15 and 16. Applicants reporting a negative net present value will pass the Rate of Return Test.

Schedule C.5—Horizon Value of Cash Flows for the Rate of Return Test

General. The applicant should use Schedule C.5 to calculate the horizon value of net cash flow projections for the Rate of Return Test. This horizon value is used in Schedule C.4. The computation of the horizon value is different for this test than for the Profit Protection Test because this test requires the reporting of depreciation for tax purposes.

In Schedule C.5, the applicant removes the tax savings of constant controls depreciation from the cash flows for the last two forecast years. A depreciation-free horizon value is then calculated from these depreciation-free cash flows. The tax savings of constant controls depreciation during the horizon years are then calculated separately. The final horizon value is equal to the sum of the depreciation-free horizon value and the tax savings from depreciation of constant controls accruing over the horizon years. The line items in Schedule C.5 are explained in the following instructions.

Line 01—Net Cash Flow Projections. Enter for each of the final two forecast years the values in Schedule C.4, Line 08, for the corresponding years.

Line 02—Depreciation and Amortization. Enter for each of the final two forecast years the value in Schedule C.4, Line 02, for the corresponding years.

Line 03—Marginal Tax Rate. Enter for each of the final two forecast years the marginal income tax rate applicable to the smelter. This rate should incorporate both Federal and State tax liability.

Line 04—Tax Savings. Enter for each of the final two forecast years the product of Lines 02 and 03.

Line 05—Nominal Dollar Values. Enter for each of the final two forecast years the difference between Lines 01 and 04.

Line 06—1990 Dollar Values. For each of the final two forecast years the nominal dollar values must be expressed in the last forecast year's dollars (1990 dollars). Transfer the 1990 amount in Line 05 directly to Line 06. Inflate the 1989 amount to 1990 dollars using the forecast GNP price deflator.

Line 07—Average. Enter under the Total column the average of the two values in Line 06.

Line 08—Horizon Factor. Enter under the Total column the horizon factor provided in Section 2.7.

Line 09—Depreciation-free Horizon Value. Enter under the Total column the product of Lines 07 and 08.

Line 10—Depreciation and Amortization. Enter for each year of the horizon period depreciation charges associated with the smelter's investment in equipment and facilities related to pollution controls. These investments should include those actually made and those required to be made by the end of the forecast period. Reported charges should be computed in accordance with depreciation and amortization methods adopted for tax reporting purposes by the firm. Attach as part of Exhibit B supporting schedules consistent with those supporting Line 17 in Schedule C.1.

Line 11—Marginal Tax Rate. Enter for each year of the horizon period the marginal income tax rate applicable to the smelter. This rate should incorporate both Federal and State tax liability.

Line 12—Tax Savings. Enter for each year of the horizon period the product of Lines 10 and 11.

Line 13—Discount Factors. Enter the discount factor for each year of the horizon period. This shall be computed according to the instructions under Section 2.6, except that the variable N found in the discount factor formula represents the number of years in the future, *counting from the last forecast year.* For example, N=1 for the first year of the horizon period.

Line 14—Present Value of Tax Savings. Enter for each year of the horizon period the product of Lines 12 and 13.

Line 15—Total Present Value of Tax Savings. Enter under the Total column the sum of values on Line 14 for the horizon years.

Line 16—Horizon Value. Enter under the Total column the sum of Lines 09 and 15.

Schedule D.1—Interim Controls Revenue Forecast

General. Use Schedule D.1 to report annual forecasts of operating revenues anticipated during the years 1984 through 1990 from operation of the smelter applying for an interim controls waiver. The applicant applying for a permanent waiver should complete Schedule D.1 twice, with revenue and production projections based on two alternative assumptions: (1) Installation of interim constant control equipment, no installation of any additional SO_2 controls that the smelter would otherwise be required to install but for the issuance of an NSO, and closure after January 1, 1988, and (2) installation of interim constant control equipment and any additional SO_2 controls required to comply with the smelter's SIP emission limitation by January 2, 1988, so that the smelter will remain open through the horizon period. The applicant applying for a temporary waiver should use only the first assumption. For a smelter that has no continuous emission controls, the assumed interim control investment program should be based on the installation and operation of a well-designed sulfuric acid plant to treat all strong gas streams. For a smelter that already has some continuous emission controls, the assumed interim constant control investment should be based on the installation and operation of any additional acid plant capacity that would be necessary for treatment of all strong streams with interim constant controls. The interim controls projections should account for other regulatory requirements on the same basis as provided for in the NSO eligibility tests.

Forecast smelter revenues should be expressed on a tolling service equivalent basis as described in Section 2.3.4. The line items in Schedule D.1 are explained in the following instructions. Attach as part of Exhibit B schedules to (1) explain the methods used to make the required forecasts, (2) explain differences, if any, between historical trends and the forecasts, and (3) provide data and information to support the forecasts.

Lines 01 and 05—Concentrates Processed. Report for each year the forecast quantity of concentrates processed for unaffiliated parties (Line 01) and affiliated parties (Line 05).

Lines 02 and 06—Smelting Charge. Report for each year the forecast smelting charge for unaffiliated parties (Line 02) and affiliated parties (Line 06). See Section 2.4 for forecast copper smelting charges furnished by EPA.

Lines 03 and 07—Total Smelter Revenues. Report for each year the forecast total operating revenues derived from processing concentrates. The total for unaffiliated parties (Line 03) is equal to the product of Lines 01, 02, and 04, and for affiliated parties (Line 07), the product of Lines 05, 06, and 08.

Lines 04 and 08—Average Product Grade. Report for each year the forecast average quality rating assigned to concentrates processed for unaffiliated parties (Line 04) and affiliated parties (Line 08).

Line 09—Total Co-Product Revenues. Report for each year the forecast net revenues from sales of co-products derived from the smelter's operations. Attach as part of Exhibit B a schedule showing by individual type of co-product the forecast quantity produced and sold, forecast market price per unit of sales, and forecast total revenues derived from the co-product sales.

Line 10—Total By-product Revenues From Pollution Control Facilities. Report for each year forecast revenues from the sale of by-products derived from operation of the smelter's pollution control facilities. Attach as part of Exhibit B a schedule showing by type of by-product produced (e.g., sulfuric acid) the forecast quantity of output, forecast market price per unit of output sold, and forecast total revenue derived from the by-product sales.

Line 11—Total By-product Revenues From Other Smelter Processing. Report forecast revenues from the sales of gold, silver, and other by-products derived from the smelter's operations. Attach as part of Exhibit B a schedule providing additional documentation as specified in the instructions for Line 10.

Line 12—Total Co-product and By-product Revenues. Enter for each year the total of Lines 09 through 11.

Schedule D.2—Interim Controls Cost Forecast

General. Use Schedule D.2 to report annual forecasts of operating costs anticipated during the years 1984 through 1990 from operation of the smelter applying for an interim controls waiver. The applicant applying for a

permanent waiver should complete Schedule D.2 twice, with cost and production projections based on two alternative assumptions: (1) Installation of interim constant control equipment, no installation of any additional SO_2 controls that the smelter would otherwise be required to install but for the issuance of an NSO, and closure after January 1, 1988, and (2) installation of interim constant control equipment and any additional SO_2 controls required to comply with the smelter's SIP emission limitation by January 2, 1988, so that the smelter will remain open through the horizon period. For a smelter that has no continuous emission controls, the assumed interim control investment program should be based on the installation and operation of a well-designed sulfuric acid plant to treat all strong gas streams. For a smelter that already has some continuous emission controls, the assumed interim constant control investment should be based on the installation and operation of any additional acid plant capacity that would be necessary for treatment of all strong streams with interim constant controls. The interim controls projections should account for other regulatory requirements on the same basis as provided for in the NSO eligibility tests.

The line items in Schedule D.2 are explained in the following instructions. Attach as part of Exhibit B schedules to (1) explain the methods used to make the required forecasts, (2) explain differences, if any, between historical trends and the forecasts, and (3) provide data and information to support the forecasts.

Line 01—Direct Labor Hours. Report for each year the quantity of direct labor hours required to support the processing levels previously reported. Attach as part of Exhibit B an explanation of the labor productivity factors involved.

Line 02—Average Hourly Wage Rate. Report for each year the forecast average wage rate per unit of direct labor input. Attach as part of Exhibit B a description of direct labor cost factors under any existing labor contracts that extend to the forecast period and an explanation of the methodology used to forecast wage rates. EPA-provided forecast wage indices are reported in Section 2.4.

Line 03—Total Wage Payments. Enter for each year the product of Lines 01 and 02.

Line 04—Supplemental Employee Benefits. Report for each year adjustments required to direct labor costs for other employee compensation under supplemental benefit plans. Attach as part of Exhibit B a description of such plans and their costs and an explanation of the methodology used to forecast such costs. EPA-provided forecast wage indices are reported in Section 2.4.

Line 05—Total Production Labor Costs. Enter for each year the total of Lines 03 and 04.

Lines 06, 09, 12, 15, and 18—Energy Quantities. Report for each year the quantity of energy by type required to support the processing levels reported in the smelter's revenue. Attach as part of Exhibit B an explanation of energy characteristics and use factors considered in forecasting the smelter's future energy requirements.

Lines 07, 10, 13, 16, and 19—Unit Prices. Report for each year the forecast price per unit of energy input by type of energy. Attach as part of Exhibit B a description of the energy price factors under any existing energy contracts that extend to the forecast period and an explanation of the methodology used to forecast unit energy prices. EPA-provided forecast energy indices are reported in Section 2.4.

Lines 08, 11, 14, 17, and 20—Total Payments. Enter for each year the products of quantity and prices paid for electricity (Lines 06×07), natural gas (Lines 09×10), coal (Lines 12×13), fuel oil (Lines 15×16), and other (Lines 18×19).

Line 21—Total Energy Costs. Enter for each year the total of Lines 08, 11, 14, 17, and 20.

Schedule D.3—Interim Controls Forecast Profit and Loss Summary

General. Use Schedule D.3 to report forecast revenue and cost information summed in Schedules D.1 and D.2 for the years 1984 through 1990. Applicants applying for a permanent waiver must complete Schedule D.3 twice. Forecast revenues and costs in Schedule D.3 shall be compatible with productive capacity and pollution control assumptions underlying the operating revenue and cost forecasts incorporated into each set of Schedules D.1 and D.2. Applicants applying for a temporary waiver should use only the first assumption: installation of interim constant control equipment and no installation of any additional SO2 controls that the smelter would otherwise be required to install but for the issuance of an NSO. The transfer of line items from Schedules D.1 and D.2 to this Schedule is explained in the following instructions.

Line 01—Smelter Revenues—Unaffiliated Parties. Enter the totals reported in Schedule D.1, Line 03.

Line 02—Smelter Revenues-Affiliated Parties. Enter the totals reported in Schedule D.1, Line 07.

Line 03—Co-product and By-product Sales Revenues. Enter the totals reported in Schedule D.1, Line 12.

Line 04—Other Operating Revenues. Report operating revenues anticipated from sources not accounted for under Lines 01 through 03. Refer to instructions for Line 04 of Schedule A.3 for items that should not be included in ''Other Operating Revenues.'' Attach as part of Exhibit B a schedule showing annual amounts forecast by individual revenue component for ''other'' operating revenues associated with the smelter's forecast interim

controls operations. Identify in the supporting schedule any differences in the ''other'' revenue components reported in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 05—Total Operating Revenues. Enter for each year the total of Lines 01 through 04.

Line 06—Material Costs. Report total costs forecast for flux, refractories, coke and other materials directly associated with the smelter's processing of concentrates. Attach as part of Exhibit B a schedule showing the annual amounts forecast by major material cost components. For each cost component, identify the forecast quantity and unit price elements of material cost and explain the basis for forecasting these quantity and price elements. Identify in the supporting schedule any differences in the ''other'' material cost components shown in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 07—Production Labor Costs. Enter the totals reported in Schedule D.2, Line 05.

Line 08—Energy Costs. Enter the totals reported in Schedule D.2, Line 21.

Line 09—Pollution Control Costs. Report the total costs forecast for operation and maintenance of all pollution control equipment and facilities under the two alternative sets of assumptions made in corresponding Schedules D.1 and D.2. Byproduct credits associated with operation of the pollution control facilities should be eliminated from the cost accounts, reclassified to Schedule D.1, Line 10 and included in Line 03 of this Schedule. Attach a schedule as part of Exhibit B classifying pollution control costs by major cost components. Explain the basis used for estimating each of the cost components.

Line 10—Production Overhead Costs. Report the total costs forecast for indirect labor, indirect materials and other production overhead costs associated with the smelter's constant controls forecasts. Attach as part of Exhibit B a schedule showing annual overhead costs projected by major cost components associated with the smelter's operations. For each cost component, where appropriate, identify the forecast quantity and unit price elements of overhead costs and explain the basis for estimating these quantity and price elements. Also identify in the supporting schedule any differences in production overhead cost classifications used in this Schedule and Schedule A.3 and explain the reasons for such differences.

Line 11—Other Production Costs. Report other forecast production costs not previously reported on lines 06 through 10. Attach as part of Exhibit B supporting schedules showing the basis of the forecasts.

Line 12—Total Cost of Sales. Enter for each year the sum of operating costs reported on Lines 06 through 11.

Line 13—Gross Operating Profit. Enter for each year the difference between Lines 05 and 12.

Line 14—Selling, General and Administrative Expenses. Report the total costs forecast for administrative, marketing and general corporate overhead functions that directly or indirectly support the smelter's operations. Refer to the NSO Financial Reporting Overview for general discussion of indirect cost allocations from overhead cost pools. Attach as part of Exhibit B a schedule classifying selling, general and administrative expenses into major cost components. Indicate whether each component represents costs directly assignable to the smelter or indirect costs allocated from other business segments to the smelter. Explain the basis used for estimating the amount of expected costs included in each component and the basis used for allocating indirect cost elements to the smelter. Identify and explain any differences between the selling, general and administrative cost classification used in this Schedule and that used in Line 15 of Schedule A.3.

Line 15—Taxes, Other than Income Taxes. Report the total costs forecast for property taxes and associated levies paid to governmental units by or for the benefit of the smelter operation. Attach as part of Exhibit B a schedule classifying operating taxes by major component. Indicate whether each component represents taxes directly assignable to the smelter or taxes that have been allocated among more than one facility. Explain the basis used for estimating taxes and the basis for any allocation of taxes to the smelter. Identify and explain any differences between the component classifications used in this Schedule and those used in Line 16 of Schedule A.3.

Line 16—Research Costs. Report the estimates of research costs incurred directly by or for the benefit of the smelter operations. Attach as part of Exhibit B a schedule classifying the costs by major direct and indirect cost components. Explain the basis for estimating the costs assigned to each component. Identify and explain any differences between classifications used in this Schedule and those used in Line 17 of Schedule A.3.

Line 17—Pollution Control Facility Depreciation and Amortization. Report the estimates of depreciation and amortization charges associated with the smelter's actual and forecast investment in all pollution control equipment and facilities under the two alternative sets of assumptions made in corresponding Schedules D.1 and D.2. Reported charges should be computed in accordance with depreciation and amortization methods adopted for tax reporting purposes by the firm. Attach explanatory supporting schedules as part of Exhibit B.

Line 18—Other Smelter Facility Depreciation and Amortization. Report the pro forma estimates of depreciation and amortization

charges associated with the smelter's investment in equipment and facilities other than those classified as pollution control facilities. Attach explanatory supporting schedules as part of Exhibit B.

Line 19—Interest on Short-Term Debt. Report the estimates of interest and other financing charges on forecast short-term obligations as classified in the smelter's current liabilities on Schedule A.4. Interest and associated financing charges on long-term debt should not be included as an expense identifiable with the smelter's operations. Attach as part of Exhibit B a schedule showing the interest-bearing, short-term debt contracts identifiable with the smelter's operations, the interest rate projected for these contracts, and the estimated annual interest charges. Identify and explain any differences between the classifications used in this Schedule and those used in Line 20 of Schedule A.3.

Line 20—Miscellaneous Operating Expenses. Report only the total operating expenses associated with or allocated to the smelter that cannot be appropriately classified in one of the preceding line items. Attach as part of Exhibit B a schedule showing the classification of these residual operating expenses into major cost components. Explain the basis used for forecasting the cost under each component. Identify each cost component in terms of direct or indirect cost and explain the basis used for allocating the indirect costs to smelter operations. Identify and explain any differences between cost classifications included in this Schedule and those used in Line 21 of Schedule A.3.

Line 21—Total Other Operating Expenses. Enter for each year the sum of operating costs reported on Lines 14 through 20.

Line 22—Income From Operations. Enter for each year the difference between Lines 21 and 13.

Line 23—Income Taxes. Enter the product of income from operations (Line 22) and the sum of the Federal, State and local marginal tax rates. Attach as part of Exhibit B a schedule detailing the estimated marginal tax rate by taxing entity.

Line 24—Net Income From Operations. Enter for each year the difference between Lines 23 and 22.

The temporary waiver from interim controls test is on Line 13 of Schedule D.3 that was completed under the assumption of installation of interim constant control equipment and no installation of any additional SO_2 controls that the smelter would otherwise be required to install but for the issuance of an NSO. Applicants will be eligible for a temporary waiver from the interim development of constant control technology for sulfur dioxide emissions if the reported gross operating profit on Line 13 is a negative value for one or more years during which the NSO is in effect.

Schedule D.4—Interim Controls Sustaining Capital Investment Forecast

General. Use Schedule D.4 to report yearly sustaining capital outlays for maintenance of the smelter's existing productive capability. The applicant should complete Schedule D.4 twice, under two alternative assumptions: (1) Installation of interim constant control equipment, no installation of any additional SO_2 controls that the smelter would otherwise be required to install but for the issuance of an NSO, and closure after January 1, 1988, and (2) installation of interim constant equipment and any additional SO_2 controls required to comply with the smelter's SIP emission limitation by January 2, 1988, so that the smelter will remain open through the horizon period.

Major elements of these outlays should be disclosed, as well as the total of such outlays. Estimates shall be restricted to those items that will be capitalized for tax purposes. These outlays shall primarily be for plant replacement, although outlays for improvements and expansion may be included to the extent that improvements and/or expansion, exclusive of required pollution control outlays, can be justified as economically feasible. Estimates of sustaining capital investments shall exclude any incremental investment for sulfur dioxide emission controls reported in Line 06 of Schedule D.6. Sustaining capital investments in facilities shared with other operating segments shall be allocated in accordance with the instructions given below.

Estimates of sustaining capital shall be compatible with productive capacity and pollution control requirements underlying the operating revenue and cost forecasts incorporated in Schedule D.3.

Line 01 to 06—Sustaining Capital. Report for each year by individual line item property, plant and equipment sustaining capital investments assignable to smelter operations. Include both (1) property, plant and equipment directly associated with the smelter's operations and (2) facilities shared with other operating segments to the extent that a causal and beneficial relationship can be established for the intersegment allocations of such facility investments.

Attach as part of Exhibit B an explanatory schedule disclosing and supporting by individual line item the major elements of annual capital expenditures for sustaining capital. Further classify these annual capital expenditures into both (1) investments required to maintain the smelter versus investments in smelter expansion and improvements and (2) direct facility versus joint-use facility investments. Explain the method used for allocating capital expenditures on joint-use facilities to the smelter's operations.

Line 07—Total Smelter Sustaining Capital. Enter for each year the total of Lines 01 through 06. Transfer the reported total for each year to Schedule D.6, Line 06.

Schedule D.5—Cash Proceeds From Liquidation

General. Use Schedule D.5 to calculate cash proceeds from liquidation. Applicants should determine the current salvage value of their existing investment in the smelter as the net proceeds that could be derived through an orderly liquidation of the smelter's assets. The net cash proceeds should be reported after an appropriate allowance for disposal costs, contractual claims against the smelter (e.g., labor termination penalties), and income tax effects on the corporation of such liquidation costs.

The applicant must stipulate the most advantageous alternative market (use) for the smelter's facilities. Generally, this market will be:

Secondary market for used plant and equipment.

Sale for scrap.

Abandonment where the disposal cost exceeds scrap value.

The current net salvage value should be disaggregated into the same property, plant and equipment asset groups reported under the historical capital investment summary, Schedule A.4. The line items in Schedule D.5 are explained in the following instructions.

Line 01—Current Assets. Enter in Columns 1 and 2, the value of total current assets shown in Line 08 of Schedule A.4 (Historical Capital Investment Summary) for 1983. No gain or loss should be reported in Columns 3 through 5 for the liquidation of current asset investments.

Lines 02–07—Property Plant and Equipment. Enter in Column 1 the appraised liquidation value (in terms of pretax cash proceeds) of the smelter by asset group. This estimate should be certified by a qualified third party professional appraiser and shall represent the best use and highest alternative value of these assets. The liquidation value of any assets which are jointly used by the smelter and other operating segments shall be excluded if, upon closure of the smelter, such assets would continue in service for the non-smelter activity.

In Column 2, report the net book value of these assets for which liquidation values have been reported in Column 1. The reported values should correspond with amounts reported for 1982 in lines 09 through 15 in Schedule A.4 as adjusted for appropriate eliminations of joint-use facilities and reconciliation to a net book value as reported for income taxes. Attach as part of Exhibit B supporting schedules showing all adjustments and conversion of the net book value as reported on the financial statements, to net book value that would be used for income tax purposes.

Compute Column 3 as Column 1 less Column 2. The gain (or loss) shown in Column 3 shall be segregated into ordinary income and capital gains components subject to taxation pursuant to applicable income tax rules. Enter ordinary income in Column 4 and capital gains in Column 5.

Line 08—Total Smelter Investment. Enter the sum of Lines 02 through 07 for each of the columns.

Line 09—Other Non-current Assets. In Column 1, report the appraised value of other non-current assets in accordance with the instructions for Line 18, Schedule A.4, except that any joint asset(s) that would continue in the event of smelter liquidation shall be excluded. This estimate shall be certified by a qualified third-party professional appraiser.

In Column 2, report the net book value of the non-current assets directly corresponding to those assets included in the liquidation value estimated under Column 1.

The remaining columns shall be completed in accordance with the instructions given above for Lines 02 and 06.

Line 10—Total Smelter Value. Enter the sum of Lines 01, 08 and 09.

Line 11—Total Current Liabilities. Report in both Columns 1 and 2, the value of total current liabilities shown in Line 25 of Schedule A.4 for 1983.

Line 12—Gross Liquidation Value. Enter the difference between Lines 10 and 11.

Line 13—Liquidation Costs. In Columns 1, 3 and 4, report the value of any liquidation costs such as labor contract termination penalties, severance pay and related costs, associated with closure of the smelter.

Line 14—Taxable Gain (or Loss). Enter in Columns 4 and 5, the differences between Lines 12 and 13.

Line 15—Income Tax Rate. Enter the sum of the Federal, State and local marginal tax rates of the firm for ordinary income and capital gains in Columns 4 and 5, respectively. Attach as part of Exhibit B a schedule detailing the estimated marginal tax rate by taxing entity.

Line 16—Income Tax on Gain (or Loss). In Columns 4 and 5, enter the product of Line 14 and the marginal income tax rates reported in Line 15. In Column 1, enter the sum of Columns 4 and 5.

Line 17—After Tax Cash Proceeds. Enter in Column 1 the difference between Line 12 and the sum of Lines 13 and 16.

Schedule D.6—Permanent Waiver from Interim Controls Test

General. Applicants must complete this Schedule and its supporting schedules if they seek a permanent waiver from interim control requirements. The applicant should complete Schedule D.6 twice, with revenue

and production projections based on two alternative assumptions: (1) Installation of interim constant control equipment, no installation of any additional SO_2 controls that the smelter would otherwise be required to install but for the issuance of an NSO, and closure after January 1, 1988, and (2) installation of interim constant control equipment and any additional SO_2 controls required to comply with the smelter's SIP emission limitation by January 2, 1988, so that the smelter will remain open through the horizon period. Forecasts in Schedule D.6 shall be compatible with assumptions and forecasts in each set of Schedules D.1 through D.4. The line items in Schedule D.6 are explained in the following instructions.

Line 01—Net Income from Operations. Enter for each year the amounts reported in Schedule D.3, Line 24.

Line 02—Net Income Adjustments. Enter any adjustments to net income not included in Schedule D.3. When assuming closure after January 1, 1988, the applicant must include the proceeds from liquidation in 1988. The applicant must estimate liquidation value as of 1988 using one of two methods: (1) the applicant may complete Schedule D.5 assuming liquidation in 1988 and report the value of after-tax cash proceeds in Line 17; or (2) the applicant may use the value of after-tax cash proceeds in Line 17 of Schedule D.5, as already completed, assuming liquidation in the current (application) year, and expressing values in 1988 dollars. The current liquidation value must be inflated to 1988 dollars by applying the appropriate forecast percentage rate changes in the GNP price deflator. Attach explanatory supporting schedules in Exhibit B.

Lines 03 and 04—Depreciation and Amortization. Enter for each year the amounts reported in Schedule D.3, Lines 17 and 18, respectively.

Line 05—Operating Cash Flow. Enter for each year the total of amounts reported on Lines 01 through 04.

Line 06—Pollution Controls Capital Investment. Enter the estimated pollution control capital outlays projected to be made under the two alternative sets of assumptions described in the *General* section of this schedule. These controls shall include only interim control equipment for the first set of assumptions and both interim control equipment and any additional SO_2 controls required to comply with the smelter's SIP emission limitation by January 2, 1988, for the second set of assumptions. The values assumed in this schedule shall correspond to the investment estimates shown in each set of supporting schedules for Line 17 of Schedule D.3. For purposes of allocating costs of the additional SO_2 controls under the second set of assumptions, applicants must provide information establishing the period over which capital outlays for such controls would be made if installation of the controls begins the latest date that would still allow compliance to be achieved by January 2, 1988. Changes in working capital investment due to investment in control facilities may be added to the capital investment estimates shown in the corresponding supporting schedules for Schedule D.3.

Line 07—Sustaining Capital. Enter for each year the amounts reported in Schedule D.4, Line 07.

Line 08—Total. Enter for each year the sum of Lines 05 and 06.

Line 09—Net Cash Flow Projections. Enter for each year the difference between Lines 04 and 07.

Line 10—Discount Factors. Enter the discount factor for each year, computed as described in the instructions under Section 2.6.

Line 11—Present Value of Future Cash Flows. Enter for each year the product of Lines 08 and 09.

Line 12—Horizon Value. Enter under the Total column the estimated horizon value of the smelter reported in Schedule D.7, Line 16.

Line 13—Discount Factor. Enter under the Total column the appropriate discount factor, computed as described in the instructions under Section 2.6.

Line 14—Present Value of Horizon Value. Enter under the Total column the product of Lines 11 and 12.

Line 15—Present Value of Future Cash Flows. Enter under the Total column the sum of amounts previously reported on Line 10 for 1984 through 1990.

Line 16—Total Present Value. Enter the sum of Lines 13 and 14.

Line 17—Current Salvage Value. Enter the amount reported in Schedule D.5, Line 17, if the value is greater than zero. If the value is zero or less, enter zero.

Line 18—Net Present Value. Enter the difference between Lines 16 and 17. In determining eligibility for a permanent waiver from interim control requirements, an applicant must use the higher of the two net present value figures computed under the two alternative assumptions. Applicants reporting a negative value for the higher net present value figure will be eligible for a permanent waiver from interim use of a constant control system for sulfur dioxide emissions.

Schedule D.7—Horizon Value of Cash Flows for the Interim Controls Test

General. Use Schedule D.7 to calculate the horizon value of net cash flow projections for the Interim Controls Test. This horizon value is used in Schedule D.6. The computation of the horizon value is different for this test than for the Profit Protection Test because this test requires the reporting of depreciation for tax purposes.

In Schedule D.7, the applicant removes the tax savings of control equipment depreciation from the cash flows for the last two forecast years. A depreciation-free horizon value is then calculated from these depreciation-free cash flows. The tax savings of constant controls depreciation during the horizon years are then calculated separately. The final horizon value is equal to the sum of the depreciation-free horizon value and the tax savings from depreciation of constant controls accruing over the horizon years. The line items in Schedule D.7 are explained in the following instruction.

Line 01—Net Cash Flow Projections. Enter for each of the final two forecast years the values in Schedule D.6, Line 09, for the corresponding years.

Line 02—Depreciation and Amortization. Enter for each of the final two forecast years the value in Schedule D.6, Line 03, for the corresponding years.

Line 03—Marginal Tax Rate. Enter for each of the final two forecast years the marginal income tax rate applicable to the smelter. This rate should incorporate both Federal and State tax liability.

Line 04—Tax Savings. Enter for each of the final two forecast years the product of Lines 02 and 03.

Line 05—Nominal Dollar Values. Enter for each of the final two forecast years the difference between Lines 01 and 04.

Line 06—1990 Dollar Values. For each of the final two forecast years the nominal dollar values must be expressed in the last forecast year's dollars (1990 dollars). Transfer the 1990 amount in Line 05 directly to Line 06. Inflate the 1989 amount to 1990 dollars using the forecast GNP price deflator.

Line 07—Average. Enter under the Total column the average of the two values in Line 06.

Line 08—Horizon Factor. Enter under the Total column the horizon factor provided in Section 2.7.

Line 09—Depreciation-free Horizon Value. Enter under the Total column the product of Lines 07 and 08.

Line 10—Depreciation and Amortization. Enter for each year of the horizon period depreciation charges associated with the smelter's investment in equipment and facilities related to pollution controls. These investments should include those actually made and those forecast to be made by the end of the forecast period. Reported charges should be computed in accordance with depreciation and amortization methods adopted for tax reporting purposes by the firm. Attach as part of exhibit B supporting schedules consistent with those supporting Line 17 in Schedule D.3.

Line 11—Marginal Tax Rate. Enter for each year of the horizon period the marginal income tax rate applicable to the smelter. This rate should incorporate both Federal and State tax liability.

Line 12—Tax Savings. Enter for each year of the horizon period the product of Lines 10 and 11.

Line 13—Discount Factors. Enter the discount factor for each year of the horizon period. This shall be computed according to the instructions under Section 2.6, except that the variable N found in the discount factor formula represents the number of years in the future, *counting from the last forecast year.* For example, N=1 for the first year of the horizon period.

Line 14—Present Value of Tax Savings. Enter for each year of the horizon period the product of Lines 12 and 13.

Line 15—Total Present Value of Tax Savings. Enter under the Total column the sum of values on Line 14 for the horizon years.

Line 16—Horizon Value. Enter under the Total column the sum of Lines 09 and 15.

ENVIRONMENTAL PROTECTION AGENCY

Primary Nonferrous Smelter Order Application

Part I—Identification Information

1. Firm name _____
2. Street/Box/RFD _____
3. City _____
4. State _____
5. Zip Code _____
6. IRS Employer Identification No. _____
7. SEC 1934 Act Registration No. _____
8. Smelter Name _____
9. Street/Box/RFD _____
10. City _____
11. State _____
12. Zip Code _____
13. Contact Person _____
14. Title _____
15. Street/Box/RFD _____
16. City _____
17. State _____
18. Zip Code _____
19. Telephone _____

Part II—Certification

I certify that the information provided herein and appended hereto is true and accurate to the best of my knowledge. I understand that this information is being required, in part, under the authority of Section 114 of the Clean Air Act, 42 U.S.C. 7414.

Name _____
Title _____
Signature _____
Date _____

SCHEDULE A.1—HISTORICAL REVENUE DATA

[Smelter identification]

	Line	1979	1980	1981	1982	1983
A. Copper product sales:						
1. Total quantity sold	01					
2. Unaffiliated customer sales:						
a. Quantity sold	2					
b. Operating revenue	03					
c. Average unit price	04					
d. Average product grade	05					
3. Affiliated customers sales:						
a. Quantity sold	06					
b. Operating revenue	07					
c. Average unit price	08					
d. Average product grade	09					
4. Adjusted copper revenues:						
a. Total copper revenues	10					
b. Transfer price adjustment	11					
c. Other revenue adjustments	12					
d. Adjusted copper revenues	13					
B. Lead product sales:						
1. Total quantity sold	14					
2. Unaffiliated customer sales:						
a. Quantity sold	15					
b. Operating revenue	16					
c. Average unit price	17					
d. Average product grade	18					
3. Affiliated customer sales:						
a. Quantity sold	19					
b. Operating revenue	20					
c. Average unit price	21					
d. Average product grade	22					
4. Adjusted lead revenues:						
a. Total lead revenues	23					
b. Transfer price adjustment	24					
c. Other revenue adjustments	25					
d. Adjusted lead revenues	26					
C. Zinc product sales:						
1. Total quantity sold	27					
2. Unaffiliated customer sales:						
a. Quantity sold	28					
b. Operating revenue	29					
c. Average unit price	30					
d. Average product grade	31					
3. Affiliated customer sales:						
a. Quantity sold	32					
b. Operating revenue	33					
c. Average unit price	34					
d. Average product grade	35					
4. Adjusted zinc revenues:						
a. Total zinc revenues	36					
b. Transfer price adjustment	37					
c. Other revenue adjustments	38					
d. Adjusted zinc revenues	39					
D. Molybdenum or other nonferrous metal sales:						
1. Total quantity sold	40					
2. Unaffiliated customer sales:						
a. Quantity sold	41					
b. Operating revenue	42					
c. Average unit price	43					
d. Average product grade	44					
3. Affiliated customer sales:						
a. Quantity sold	45					
b. Operating revenue	46					
c. Average unit price	47					
d. Average product grade	48					
4. Adjusted molybdenum or other nonferrous metal revenues:						
a. Total molybdenum or other nonferrous metal revenues	49					
b. Transfer price adjustment	50					
c. Other revenue adjustments	51					
d. Adjusted molybdenum or other nonferrous metal revenues	52					

SCHEDULE A.1—HISTORICAL REVENUE DATA—Continued

[Smelter identification]

	Line	1979	1980	1981	1982	1983
E. Primary metal revenues	53					
F. Tolling service revenues:						
1. Total toll concentrates processed	54					
2. Unaffiliated customer revenues:						
a. Concentrates processed	55					
b. Operating revenue	56					
c. Average unit price	57					
d. Average product grade	58					
3. Affiliated customer revenues:						
a. Concentrates processed	59					
b. Operating revenue	60					
c. Average unit price	61					
d. Average product grade	62					
4. Adjusted tolling service revenues:						
a. Total tolling service revenue	63					
b. Transfer price adjustment	64					
c. Other revenue adjustments	65					
d. Adjusted tolling service revenues	66					
G. Coproduct and byproduct sales:						
1. Total coproduct revenues	67					
2. Total byproduct revenues:						
a. Pollution control facilities	68					
b. Other smelter processing	69					
3. Total coproduct and byproduct revenues	70					

SCHEDULE A.2—HISTORICAL COST DATA

[Smelter identification]

	Line	1979	1980	1981	1982	1983
A. Concentrate costs:						
1. Total quantity purchased	01					
2. Unaffiliated purchases:						
a. Quantity purchased	02					
b. Concentrate cost	03					
c. Average unit price	04					
d. Average concentrate grade	05					
3. Affiliated purchases:						
a. Quantity purchased	06					
b. Concentrate cost	07					
c. Average unit price	08					
d. Average concentrate grade	09					
4. Adjusted concentrate costs:						
a. Total concentrate costs	10					
b. Transfer price adjustment	11					
c. Other cost adjustments	12					
d. Adjusted concentrate cost	13					
B. Production labor cost:						
1. Direct labor hours	14					
2. Average hourly wage rate	15					
3. Total wage payments	16					
4. Supplemental employee benefits	17					
5. Total production labor cost	18					
C. Energy costs:						
1. Electricity:						
a. Quantity in kilowatt hours	19					
b. Price per kwh	20					
c. Total electricity payments	21					
2. Natural gas:						
a. Quantity in mcf	22					
b. Price per mcf	23					
c. Total natural gas payments	24					
3. Coal:						
a. Quantity in tons	25					
b. Price per ton	26					
c. Total coal payments	27					
4. Fuel oil:						
a. Quantity in gallons	28					
b. Price per gallon	29					
c. Total fuel oil payments	30					

SCHEDULE A.2—HISTORICAL COST DATA—Continued

[Smelter identification]

	Line	1979	1980	1981	1982	1983
5. Other (specify):						
a. Quantity (specific units)	31					
b. Price per unit	32					
c. Total payments	33					
6. Total energy costs	34					

SCHEDULE A.3—HISTORICAL PROFIT AND LOSS SUMMARY

[Smelter identification]

	Line	1979	1980	1981	1982	1983
A. Operating revenues:						
1. Primary metal sales	01					
2. Coproduct and byproduct sales	02					
3. Tolling service revenues	03					
4. Other operating revenues	04					
5. Total operating revenues	05					
B. Cost of sales:						
1. Concentrates processed	06					
2. Other materials	07					
3. Production labor	08					
4. Energy costs	09					
5. Pollution control cost	10					
6. Production overhead	11					
7. Other production costs	12					
8. Total cost of sales	13					
C. Gross operating profit	14					
D. Other operating expenses:						
1. Selling general and administrative	15					
2. Taxes, other than income tax	16					
3. Research costs	17					
4. Depreciation and amortization:						
a. Pollution control facilities	18					
b. Other smelter facilities	19					
5. Interest on short term debt	20					
6. Miscellaneous operating expenses	21					
7. Total other operating expenses	22					
E. Income from operations	23					
F. Other income and (expense):						
1. Gain/(loss) on disposition of property	24					
2. Miscellaneous other income and (expense)	25					
3. Total other income and (expense)	26					
G. Net taxable income	27					

SCHEDULE A.4—HISTORICAL CAPITAL INVESTMENT SUMMARY

[Smelter identification]

	Line	1979	1980	1981	1982	1983
A. Current assets:						
1. Cash on hand and deposit	01					
2. Temporary cash investments	02					
3. Trade receivables, net:						
a. Unaffiliated customers	03					
b. Affiliated customers	04					
4. Inventories:						
a. Raw materials and products	05					
b. Other materials and supplies	06					
5. Other current assets	07					
6. Total current assets	08					
B. Property, plant and equipment:						
1. Land	09					
2. Buildings and improvements	10					
3. Machinery and equipment	11					
4. Transportation equipment	12					
5. Pollution control facilities	13					
6. Other fixed assets	14					
7. Total smelter investment	15					
8. Less: Accumulated depreciation and amortization	16					

SCHEDULE A.4—HISTORICAL CAPITAL INVESTMENT SUMMARY—Continued

[Smelter identification]

	Line	1979	1980	1981	1982	1983
9. Net smelter investment	17					
C. Other noncurrent assets	18					
D. Total smelter capital investment	19					
E. Current liabilities:						
1. Trade accounts and notes payable:						
a. Unaffiliated suppliers	20					
b. Affiliated suppliers	21					
2. Other expense accruals	22					
3. Notes payable, current	23					
4. Other current liabilities	24					
5. Total current liabilities	25					
F. Net smelter capital investment	26					

SCHEDULE B—PRE-CONTROL REVENUE FORECAST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast smelter revenues—unaffiliated parties:								
1. Concentrates processed	01							
2. Smelting charge	02							
3. Total smelter revenues	03							
4. Average product grade	04							
B. Forecast smelter revenues—affiliated parties:								
1. Concentrates processed	05							
2. Smelting charge	06							
3. Total smelter revenues	07							
4. Average product grade	08							
C. Forecast co-product and by-product sales:								
1. Total co-product revenues	09							
2. Total by-product revenues from:								
a. Pollution control facilities	10							
b. Other smelter processing	11							
3. Total co-product and by-product revenues	12							

SCHEDULE B.2—PRE-CONTROL COST FORECAST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast production labor cost:								
1. Direct labor hours	01							
2. Average hourly wage rate	02							
3. Total wage payments	03							
4. Supplemental employee benefits	04							
5. Total production labor cost	05							
B. Forecast energy costs:								
1. Electricity:								
a. Quantity in kilowatt hours	06							
b. Price per kwh	07							
c. Total electricity payments	08							
2. Natural gas:								
a. Quantity in mcf	09							
b. Price per mcf	10							
c. Total natural gas payments	11							
3. Coal:								
a. Quantity in tons	12							
b. Price per ton	13							
c. Total coal payments	14							
4. Fuel oil:								
a. Quantity in gallons	15							
b. Price per gallon	16							
c. Total fuel oil payments	17							
5. Other (specify):								
a. Quantity (specific units)	18							
b. Price per unit	19							
c. Total payments	20							

SCHEDULE B.2—PRE-CONTROL COST FORECAST—Continued

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
6. Total energy costs	21							

SCHEDULE B.3—PRE-CONTROL FORECAST PROFIT AND LOSS SUMMARY

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast operating revenues:								
1. Smelter revenues—unaffiliated parties	01							
2. Smelter revenues—affiliated parties	02							
3. Co-product and by-product sales	03							
4. Other operating revenues	04							
5. Total operating revenues	05							
B. Forecast cost of sales:								
1. Material costs	06							
2. Production labor costs	07							
3. Energy costs	08							
4. Pollution control costs	09							
5. Production overhead	10							
6. Other production costs	11							
7. Total cost of sales	12							
C. Forecast gross operating profit	13							
D. Forecast other operating expenses:								
1. Selling, general and administrative expenses	14							
2. Taxes, other than income tax	15							
3. Research costs	16							
4. Depreciation and amortization:								
a. Pollution control facilities	17							
b. Other smelter facilities	18							
5. Interest	19							
6. Miscellaneous operating expenses	20							
7. Total other operating expenses	21							
E. Forecast income from operations	22							

SCHEDULE B.4—CONSTANT CONTROLS REVENUE FORECAST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast smelter revenues—unaffiliated parties:								
1. Concentrates processed	01							
2. Smelting charge	02							
3. Total smelter revenues	03							
4. Average product grade	04							
B. Forecast smelter revenues—affiliated parties:								
1. Concentrates processed	05							
2. Smelting charge	06							
3. Total smelter revenues	07							
4. Average product grade	08							
C. Forecast co-product and by-product sales:								
1. Total co-product revenues	09							
2. Total by-product revenues from:								
a. Pollution control facilities	10							
b. Other smelter processing	11							
3. Total co-product and by-product revenues	12							

SCHEDULE B.5—CONSTANT CONTROLS COST FORECAST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast production labor cost:								
1. Direct labor hours	01							

SCHEDULE B.5—CONSTANT CONTROLS COST FORECAST—Continued

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
2. Average hourly wage rate	02							
3. Total wage payments	03							
4. Supplemental employee benefits	04							
5. Total production labor cost	05							
B. Forecast energy costs:								
1. Electricity:								
a. Quantity in kilowatt hours	06							
b. Price per kwh	07							
c. Total electricity payments	08							
2. Natural gas:								
a. Quantity in mcf	09							
b. Price per mcf	10							
c. Total natural gas payments	11							
3. Coal:								
a. Quantity in tons	12							
b. Price per ton	13							
c. Total coal payments	14							
4. Fuel oil:								
a. Quantity in gallons	15							
b. Price per gallon	16							
c. Total fuel oil payments	17							
5. Other (specify):								
a. Quantity (specific units)	18							
b. Price per unit	19							
c. Total payments	20							
6. Total energy costs	21							

SCHEDULE B.6—CONSTANT CONTROLS PROFIT AND LOSS SUMMARY FOR THE PROFIT PROTECTION TEST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast operating revenues:								
1. Smelter revenues—unaffiliated parties	01							
2. Smelter revenues—affiliated parties	02							
3. Co-product and by-product sales	03							
4. Other operating revenues	04							
5. Total operating revenues	05							
B. Forecast cost of sales:								
1. Material costs	06							
2. Production labor costs	07							
3. Energy costs	08							
4. Pollution control costs	09							
5. Production overhead	10							
6. Other production costs	11							
7. Total cost of sales	12							
C. Forecast gross operating profit	13							
D. Forecast other operating expenses:								
1. Selling, general and administrative expenses	14							
2. Taxes, other than income tax	15							
3. Research costs	16							
4. Depreciation and amortization:								
a. Pollution control facilities	17							
b. Other smelter facilities	18							
5. Interest	19							
6. Miscellaneous operating expenses	20							
7. Total other operating expenses	21							
E. Forecast income from operations	22							

SCHEDULE B.7—PROFIT PROTECTION TEST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990	Total
A. Pre-control case:									
1. Net income from operations	01								XXXX

SCHEDULE B.7—PROFIT PROTECTION TEST—Continued

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990	Total
2. Discount factors	02	.....	.....	.....	.....	.....	.....	.....	XXXX
3. Present value of future net income	03	.....	.....	.....	.....	.....	.....	.....	XXXX
4. Horizon value	04	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
5. Discount factor	05	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
6. Present value of horizon value	06	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
7. Present value of future net income	07	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
8. Total present value	08	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
B. Constant controls case:									
1. Net income from operations	09	.....	.....	.....	.....	.....	.....	.....	XXXX
2. Discount factors	10	.....	.....	.....	.....	.....	.....	.....	XXXX
3. Present value of future net income	11	.....	.....	.....	.....	.....	.....	.....	XXXX
4. Horizon value	12	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
5. Discount factor	13	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
6. Present value of horizon value	14	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
7. Present value of future net income	15	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
8. Total present value	16	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
C. Ratio of total present value of constant controls case to total, present value of base case	17	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....

SCHEDULE C.1—CONSTANT CONTROLS PROFIT AND LOSS SUMMARY FOR THE RATE OF RETURN TEST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast operating revenues:								
1. Smelter revenues—unaffilated parties	01	.....	.....	.....	.....	.....	.....	.....
2. Smelter revenues—affiliated parties	02	.....	.....	.....	.....	.....	.....	.....
3. Co-product and by-product sales	03	.....	.....	.....	.....	.....	.....	.....
4. Other operating revenues	04	.....	.....	.....	.....	.....	.....	.....
5. Total operating revenues	05	.....	.....	.....	.....	.....	.....	.....
B. Forecast cost of sales:								
1. Material costs	06	.....	.....	.....	.....	.....	.....	.....
2. Production labor costs	07	.....	.....	.....	.....	.....	.....	.....
3. Energy costs	08	.....	.....	.....	.....	.....	.....	.....
4. Pollution control costs	09	.....	.....	.....	.....	.....	.....	.....
5. Production overhead	10	.....	.....	.....	.....	.....	.....	.....
6. Other production costs	11	.....	.....	.....	.....	.....	.....	.....
7. Total cost of sales	12	.....	.....	.....	.....	.....	.....	.....
C. Forecast gross operating profit	13	.....	.....	.....	.....	.....	.....	.....
D. Forecast other operating expenses:								
1. Selling, general and administrative expenses	14	.....	.....	.....	.....	.....	.....	.....
2. Taxes, other than income tax	15	.....	.....	.....	.....	.....	.....	.....
3. Research costs	16	.....	.....	.....	.....	.....	.....	.....
4. Depreciation and amortization								
a. Pollution control facilities	17	.....	.....	.....	.....	.....	.....	.....
b. Other smelter facilities	18	.....	.....	.....	.....	.....	.....	.....
5. Interest on short-term debt	19	.....	.....	.....	.....	.....	.....	.....
6. Miscellaneous operating expenses	20	.....	.....	.....	.....	.....	.....	.....
7. Total other operating expenses	21	.....	.....	.....	.....	.....	.....	.....
E. Forecast income from operations	22	.....	.....	.....	.....	.....	.....	.....
F. Forecast income taxes	23	.....	.....	.....	.....	.....	.....	.....
G. Forecast net income from operations	24	.....	.....	.....	.....	.....	.....	.....

SCHEDULE C.2—CONSTANT CONTROLS SUSTAINING CAPITAL INVESTMENT FORECAST

[Smelter identification]

Sustaining capital	Line	1984	1985	1986	1987	1988	1989	1990
1. Land	01	.....	.....	.....	.....	.....	.....	.....

SCHEDULE C.2—CONSTANT CONTROLS SUSTAINING CAPITAL INVESTMENT FORECAST—Continued

[Smelter identification]

Sustaining capital	Line	1984	1985	1986	1987	1988	1989	1990
2. Buildings and improvements	02							
2. Machinery and equipment	03							
4. Transportation equipment	04							
5. Pollution control facilities	05							
6. Other fixed assets	06							
7. Total smelter sustaining capital	07							

SCHEDULE C.3—HISTORICAL CAPITAL INVESTMENT IN CONSTANT DOLLARS

[Smelter identification]

Items from 1983 balance sheet	Line	Nominal dollars	Constant dollars
A. Current assets:			
1. Cash on hand and deposit	01		
2. Temporary cash investments	02		
3. Trade receivables, net:			
a. Unaffiliated customers	03		
b. Affiliated customers	04		
4. Inventories:			
a. Raw materials and products	05		
b. Other materials and supplies	06		
5. Other current assets	07		
6. Total current assets	08		
B. Property, plant and equipment:			
1. Land	09		
2. Buildings and improvements	10		
3. Machinery and equipment	11		
4. Transportation equipment	12		
5. Pollution control facilities	13		
6. Other fixed assets	14		
7. Total smelter investments	15		
8. Less: Accumulated depreciation and amortization	16		
9. Net smelter investment	17		
C. Other noncurrent assets	18		
D. Total smelter capital investment	19		
E. Current liabilities:			
1. Trade accounts and notes payable:			
a. Unaffiliated suppliers	20		
b. Affiliated suppliers	21		
2. Other expense accruals	22		
3. Notes payable, current	23		
4. Other current liabilities	24		
5. Total current liabilities	25		
F. Net smelter capital investment	26		

SCHEDULE C.4—RATE OF RETURN TEST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990	Total
A. Operating cash flow projection:									
1. Net income from operations	01								XXXX
2. Depreciation and amortization:									
a. Pollution control facilities	02								XXXX
b. Other smelter facilities	03								XXXX
3. Operating cash flow	04								XXXX
4. Capital expenditure projections:									
a. Constant controls	05								XXXX
b. Sustaining capital	06								XXXX
c. Total	07								XXXX
5. Net cash flow projections	08								XXXX
6. Discount factors	09								XXXX
7. Present value of future cash flows	10								XXXX

SCHEDULE C.4—RATE OF RETURN TEST—Continued

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990	Total
B. Net present value:									
1. Horizon value	11	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
2. Discount factor	12	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
3. Present value of horizon value	13	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
4. Present value of future cash flows	14	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
5. Total present value	15	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
6. Net smelter capital investment in constant dollars	16	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
7. Net present value	17	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....

SCHEDULE C.5—HORIZON VALUE OF CASH FLOWS

[Smelter identification]

	Line	Final forecast years		Horizon years					
		1989	1990	1991	1992	1993	1994	1995	Total
A. Depreciation-free horizon value:									
1. Net cash flow projections	01	.....	.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
2. Depreciation tax savings:									
a. Depreciation and amortization	02	.....	.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
b. Marginal tax rate	03	.....	.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
c. Tax savings	04	.....	.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
3. Depreciation-free net cash flows:									
a. Nominal dollar values	05	.....	.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
b. 1990 dollar values	06	.....	.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
c. Average	07	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
4. Horizon factor	08	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
5. Depreciation-free horizon value	09	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
B. Depreciation tax savings over the horizon period:									
1. Depreciation and amortization	10	XXXX	XXXX	.....	.....	.....	.....	.....	XXXX
2. Marginal tax rate	11	XXXX	XXXX	.....	.....	.....	.....	.....	XXXX
3. Tax savings	12	XXXX	XXXX	.....	.....	.....	.....	.....	XXXX
4. Discount factors	13	XXXX	XXXX	.....	.....	.....	.....	.....	XXXX
5. Present value of tax savings	14	XXXX	XXXX	.....	.....	.....	.....	.....	XXXX
6. Total present value of tax savings	15	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
C. Horizon Value	16	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....

SCHEDULE D.1—INTERIM CONTROLS REVENUE FORECAST

[Smelter Identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast smelter revenues—unaffiliated parties:								
1. Concentrates processed	01	.....	.....	.....	.....	.....	.....	.....
2. Smelting charge	02	.....	.....	.....	.....	.....	.....	.....
3. Total smelter revenues	03	.....	.....	.....	.....	.....	.....	.....
4. Average product grade	04	.....	.....	.....	.....	.....	.....	.....
B. Forecast smelter revenues—affiliated parties:								
1. Concentrates processed	05	.....	.....	.....	.....	.....	.....	.....
2. Smelting charge	06	.....	.....	.....	.....	.....	.....	.....
3. Total smelter revenues	07	.....	.....	.....	.....	.....	.....	.....
4. Average product grade	08	.....	.....	.....	.....	.....	.....	.....
C. Forecast co-product and by-product sales:								
1. Total co-product revenues	09	.....	.....	.....	.....	.....	.....	.....
2. Total by-product revenues from:								
a. Pollution control facilities	10	.....	.....	.....	.....	.....	.....	.....

SCHEDULE D.1—INTERIM CONTROLS REVENUE FORECAST—Continued

[Smelter Identification]

	Line	1984	1985	1986	1987	1988	1989	1990
b. Other smelter processing	11							
3. Total co-product and by-product revenues:	12							

SCHEDULE D.2—INTERIM CONTROLS COST FORECAST

[Smelter Identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast production labor cost:								
1. Direct labor hours	01							
2. Average hourly wage rate	02							
3. Total wage payments	03							
4. Supplemental employee benefits	04							
5. Total production labor cost	05							
B. Forecast energy costs:								
1. Electricity:								
a. Quantity in kilowatt hours	06							
b. Price per kwh	07							
c. Total electricity payments	08							
2. Natural gas:								
a. Quantity in mcf	09							
b. Price per mcf	10							
c. Total natural gas payments	11							
3. Coal:								
a. Quantity in tons	12							
b. Price per ton	13							
c. Total coal payments	14							
4. Fuel oil:								
a. Quantity in gallons	15							
b. Price per gallon	16							
c. Total fuel oil payments	17							
5. Other (specify):								
a. Quantity (specific units)	18							
b. Price per unit	18							
c. Total payments	20							
6. Total energy costs	21							

SCHEDULE D.3—INTERIM CONTROLS FORECAST PROFIT AND LOSS SUMMARY

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
A. Forecast operating revenues:								
1. Smelter revenues—unaffiliated parties	01							
2. Smelter revenues—affiliated parties	02							
3. Co-product and by-product sales	03							
4. Other operating revenues	04							
5. Total operating revenues	05							
B. Forecast cost of sales:								
1. Material costs	06							
2. Production labor costs	07							
3. Energy costs	08							
4. Pollution control costs	09							
5. Production overhead	10							
6. Other production costs	11							
7. Total cost of sales	12							
C. Forecast gross operating profit	13							
D. Forecast other operating expenses:								
1. Selling, general and administrative expenses	14							
2. Taxes, other than income tax	15							
3. Research costs	16							
4. Depreciation and amortization:								
a. Pollution control facilities	17							
b. Other smelter facilities	18							
5. Interest on short-term debt	19							
6. Miscellaneous operating expenses	20							

SCHEDULE D.3—INTERIM CONTROLS FORECAST PROFIT AND LOSS SUMMARY—Continued

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990
7. Total other operating expenses	21							
E. Forecast income from operations	22							
F. Forecast income taxes	23							
G. Forecast net income from operations	24							

SCHEDULE D.4—INTERIM CONTROL SUSTAINING CAPITAL INVESTMENT FORECAST

[Smelter identification]

Sustaining capital	Line	1984	1985	1986	1987	1988	1989	1990
1. Land	01							
2. Buildings and improvements	02							
3. Machinery and equipment	03							
4. Transportation equipment	04							
5. Pollution control facilities	05							
6. Other fixed assets	06							
7. Total smelter sustaining capital	07							

SCHEDULE D.5—CASH PROCEEDS FROM LIQUIDATION

[Smelter identification]

	Line	(1) Estimated Liquidation value	(2) Reported net book value	(3) Total gain (loss)	Gain (loss) subject to taxation as—	
					(4) Ordinary income	(5) Capital gain
A. Total current assets	01			XXXXX	XXXXX	XXXXX
B. Property, plant and equipment:						
1. Land	02					
2. Buildings and improvements	03					
3. Machinery and equipment	04					
4. Transportation equipment	05					
5. Pollution control facilities	06					
6. Other fixed assets	07					
7. Total	08					
C. Other noncurrent assets.	09					
D. Total smelter value	10					
E. Total current liabilities	11			XXXXX	XXXXX	XXXXX
F. Gross liquidation value	12					
G. Liquidation costs	13		XXXXX			XXXXX
H. Net Taxable Gain (or loss)	14	XXXXX	XXXXX	XXXXX		
I. Income tax rate	15	XXXXX	XXXXX	XXXXX		
J. Income tax on gain (loss)	16	XXXXX	XXXXX	XXXXX		
K. After tax cash proceeds from liquidation	17		XXXXX	XXXXX	XXXXX	XXXXX

SCHEDULE D.6—PERMANENT WAIVER FROM INTERIM CONTROLS TEST

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990	Total
A. Operating Cash flow projection:									
1. Net income from operations	01								XXXX
2. Net income adjustments	02								XXXX
3. Depreciation and amortization:									
a. Pollution control facilities	03								XXXX
b. Other smelter facilities	04								XXXX
4. Operating cash flow	05								XXXX
5. Capital expenditure projections:									
a. Interim controls	06								XXXX
b. Sustaining capital	07								XXXX
c. Total	08								XXXX
6. Net cash flow projections	09								XXXX

SCHEDULE D.6—PERMANENT WAIVER FROM INTERIM CONTROLS TEST—Continued

[Smelter identification]

	Line	1984	1985	1986	1987	1988	1989	1990	Total
7. Discount factors	10	.....	.....	.....	.....	.....	.....	.....	XXXX
8. Present value of future cash flows	11	.....	.....	.....	.....	.....	.....	.....	XXXX
B. Net present value:									
1. Horizon value	12	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
2. Discount factor	13	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
3. Present value of horizon value	14	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
4. Present value of future cash flows	15	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
5. Total present value	16	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
6. Current salvage value	17	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
7. Net present value	18	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....

SCHEDULE D.7—HORIZON VALUE OF CASH FLOWS

[Smelter identification]

	Line	Final forecast years		Horizon years					Total
		1989	1990	1991	1992	1993	1994	1995	
A. Depreciation-free horizon value:									
1. Net cash flow projections	01	.....	.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
2. Depreciation tax savings:									
a. Depreciation and amortization	02	.....	.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
b. Marginal tax rate	03	.....	.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
c. Tax savings	04	.....	.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
3. Depreciation-free net cash flows:									
a. Nominal dollar values	05	.....	.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
b. 1990 dollar values	06	.....	.....	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
c. Average	07	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
4. Horizon factor	08	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
5. Depreciation-free horizon value	09	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
B. Depreciation tax savings over the horizon period:									
1. Depreciation and amortization	10	XXXX	XXXX	.....	.....	.....	.....	.....	XXXX
2. Marginal tax rate	11	XXXX	XXXX	.....	.....	.....	.....	.....	XXXX
3. Tax savings	12	XXXX	XXXX	.....	.....	.....	.....	.....	XXXX
4. Discount factors	13	XXXX	XXXX	.....	.....	.....	.....	.....	XXXX
5. Present value of tax savings	14	XXXX	XXXX	.....	.....	.....	.....	.....	XXXX
6. Total present value of tax savings	15	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....
C. Horizon Value	16	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	.....

PART 58—AMBIENT AIR QUALITY SURVEILLANCE

Subpart A—General Provisions

Sec.

58.1 Definitions.
58.2 Purpose.
58.3 Applicability.

Subpart B—Monitoring Network

58.10 Annual monitoring network plan and periodic network assessment.
58.11 Network technical requirements.
58.12 Operating schedules.
58.13 Monitoring network completion.
58.14 System modification.
58.15 Annual air monitoring data certification.
58.16 Data submittal and archiving requirements.

Subpart C—Special Purpose Monitors

58.20 Special purpose monitors (SPM).