1919

Cost keeping for newsprint paper mills

Morse, Perley, & Company, New York

Newsprint Service Bureau. Committee on Uniform Cost Keeping

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Cost Keeping
for
Newsprint Paper Mills

Recommended by

COMMITTEE ON UNIFORM COST KEEPING
NEWSPRINT SERVICE BUREAU

COMMITTEE ON UNIFORM COST KEEPING
CANADIAN MILLS ASSOCIATED WITH THE
CANADIAN EXPORT PAPER CO., Limited

PERLEY MORSE & COMPANY
Certified Public Accountants
New York
Cost Keeping
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PERLEY MORSE & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
NEW YORK
February 15, 1919.

Owen Shepherd, Esq., Chairman,
Committee on Uniform Cost Keeping,
News-Print Service Bureau.

E. S. Coleman, Esq., Chairman,
Committee on Uniform Cost Keeping,
Canadian Mills, Associated with the
Canadian Export Paper Co., Limited.

Gentlemen:

In accordance with your instructions we have planned a system for uniform cost keeping for use in news-print paper mills.

In submitting this report to you for consideration we desire to say that we have tried to meet all conditions surrounding the industry, except as to inter-company profits and losses and woodlands operations.

The usual fully integrated mill has been used as a standard; hence some parts of this system may not be necessary where a mill is not fully integrated.

The addenda furnishes a plan for handling inter-departmental profits and losses when they appear on the books and contains the necessary forms to be used in reporting costs.

We have submitted the system in full to the Federal Trade Commission, Washington, D. C. In connection with this we refer you to their letter of February 6, 1919, addressed to us, which is reproduced in our report.

Respectfully submitted,

[Signature]

Certified Public Accountants.
February 20th, 1919.

OWEN SHEPHERD, Esq.,
Chairman, Committee on Uniform Cost Keeping, Newsprint Service Bureau, New York City, N. Y.

E. S. COLEMAN, Esq.,
Chairman, Committee on Uniform Cost Keeping, Canadian Mills Associated with Canadian Export Paper Company, Limited, Montreal, P. Q.

Dear Sirs:

Pursuant to your request we have acted in an advisory capacity in the preparation of the uniform cost accounting system for the several news-print manufacturers whom you represent, which has been submitted by Messrs. Perley Morse & Company with their letter to you under date of February 15, 1919.

Except that it does not provide for cost computations of woodland operations, we think that the accounting principles adopted for the system as a whole are sound. While no doubt the system requires modifications in detail in order to adapt it to the requirements of individual companies, such modifications should be made without altering the fundamental outline which appears to be sufficiently elastic to serve all purposes. On this basis we recommend that the committee submit the system as drafted to the respective manufacturers, and urge its acceptance.

It might be mentioned here that the success of any accounting system depends very largely upon the cooperation of all officers and employees of the company, and this fact should be impressed upon the members of the two organizations. We suggest also that if the system be accepted a joint committee should be appointed for the purpose of advising the respective manufacturers in adapting it to their businesses, and of adopting any measures that may be deemed desirable to ensure the proper and uniform installation of the system at the mills.

Yours very truly,

[Signature]
February 6th, 1919.

Dear Sirs:

The Commission has examined with interest the proposed uniform cost system for news-print manufacturers designed by you on behalf of the Committees on Uniform Cost Keeping of the News-Print Service Bureau and for the Canadian Mills associated with the Canadian Export Paper Company, Ltd.

It is not possible at this time to make a thorough study of this matter such as constructive criticism would require, but such examination as we have been able to make satisfies us that this system embodies in the main the principles of accounting on which the cost figures in the news-print price proceeding were based.

We are pleased to see that this system distinguishes between manufacturing cost and commercial cost and that the items going to make up the commercial cost of news-print are kept out of inventory; also that finishing costs have been segregated in the cost of news-print roll manufacturing, so that the cost accounts show the unit cost for a commercial ton of paper.

We believe that the provision for showing the cost of news-print sheets separately is an important improvement; also that the plan of deducting the value of by-products, such as screenings, from the cost of the process in which such by-products originate, is the correct one to follow.

By direction of the Commission,

Very truly yours,

William B. Pozzi. Chairman.

To

Perley Morse & Company,
61 Broadway, New York City.
COST KEEPING FOR NEWSPRINT PAPER MILLS

This system of accounts distinguishes between MANUFACTURING COST and COMMERCIAL COST OF GOODS SOLD. The latter being the sum of the Manufacturing Cost of Sales, Shipping Expense, Selling Expense and Administration and General Expense for the period.

Inventories of Finished Goods are shown at Manufacturing Cost and the principle of averaging the Inventory on Hand at the Beginning of the Period with the Production During the Period in determining the Unit Cost of Goods Sold or Used is recommended.

Costs should be calculated for bi-weekly or monthly periods according to the requirements of the accounting company and, though calculations contained herein are for monthly periods, the principles may be adapted to the bi-weekly closing.

RAW MATERIAL STOCK RECORDS

The cost system should provide, if necessary, for perpetual inventories to be shown by stock records for the following articles:

COAL
FUEL OIL
SULPHUR
LIME AND LIMESTONE
WASTE PAPER. This includes all papers used in stock.
MISCELLANEOUS STOCK MATERIALS. Namely, such items as:
  Fillers, including Clay, Talc, Fluorine, Starch, Rice Flour, Agalite, etc.
  Alum
  Bleaching Materials, including Bleach, Lime, Soda Ash, Vitriol, Sulphuric Acid, Caustic Soda, Alkali, Chloride of Lime, Acetic Acid, etc.
  Color, including Colors and Chemicals used in coloring.
  Sizing, including Rosin, Soda Ash, Silicate of Soda, Fish Oil, Salt, Alkali, Glue, etc.

CONVERSION SUPPLIES. Namely such items as:
  Pulp Stones
  Screen Plates, including New Plates, New Recuts, etc.
  Wires, including Fourdrinier, Cylinder, Dandies, etc.
  Machine Clothing, including 1st, 2nd and 3rd Presses, Dryer Belts, Dryer Felt, Twines, Jackets, Deckle Cloth, Cylinder, Wire Felts, Apron Cloth, etc.
  Lubricants

WRAPPERS
FINISHING MATERIALS
MISCELLANEOUS

The above accounts are charged with the purchases including freight and handling into stock and are credited with the costs of the amounts consumed, as shown by those accounts, in the production of Ground Wood, Sulphite and Paper, leaving a balance representing inventory. Where several items of material are included under one heading, subsidiary stores’ records showing quantities and unit costs of individual items should be kept.
FINISHED GOODS STOCK RECORDS

Perpetual Inventories of the following Finished Goods should be kept:

LAPPED GROUND WOOD (OWN MAKE). This account is charged with the cost of Lapped Ground Wood made, transferred from Ground Wood Production Account, and is credited with the cost of the amounts sold or used, leaving a balance representing Inventory.

LAPPED GROUND WOOD (PURCHASED). This account is charged with purchases including freight and handling of Lapped Ground Wood and is credited with the cost of the amounts sold or used, leaving a balance representing Inventory. NOTE.—Intermill transfers in the same corporation are not regarded as Purchases and Sales. See Addenda.

LAPPED SULPHITE (OWN MAKE). This account is charged with the Cost of Lapped Sulphite made, transferred from Sulphite Production Account, and is credited with the cost of amounts sold or used, leaving a balance representing Inventory.

LAPPED SULPHITE (PURCHASED). This account is charged with purchases including freight and handling of Lapped Sulphite and is credited with the cost of the amount sold or used, leaving a balance representing Inventory. NOTE.—Intermill transfers in the same corporation are not regarded as Purchases and Sales. See Addenda.

UNFINISHED NEWSPRINT ROLLS. This account is charged with the cost of all rolls not finished during the month, transferred from Newsprint Rolls Production Account, and is credited with the cost of the amount used in making sheets, leaving a balance representing Inventory.

FINISHED NEWSPRINT ROLLS. This account is charged with the Manufacturing Cost of Newsprint Rolls made and finished, transferred from Newsprint Rolls Production Account, and is credited with the cost of the amount sold, leaving a balance representing Inventory.

NEWSPRINT SHEETS. This account is charged with the Cost of Newsprint Sheets made and finished, transferred from Newsprint Sheets Production Account, and is credited with the cost of Newsprint Sheets sold, leaving a balance representing Inventory.

SCREENINGS. See Treatment of Screenings under Ground Wood and Sulphite Production Accounts.

MANUFACTURING COST

For the purpose of determining manufacturing cost, the production accounts as outlined below should be kept. Debit items have been numbered and a full explanation of each is given under the Details of Production Accounts.

WATER, STEAM, AND ELECTRIC POWER

Separate production accounts should be kept for determining the cost of Water Power, Steam Power and Electric Power, and the cost of such Power should be charged at the end of the month to the production of Prepared Wood, Ground Wood, Sulphite and Paper in proportion to the amount consumed by each. Where Water Power or Steam Power are used for the purpose of generating Electric Power, the Electric Power Account should be charged with the cost of the power so used in determining the cost of Electric Power.
ACCOUNT AA—WATER POWER PRODUCTION
The items composing this account are classified as follows:

Debits:
101 Labor
102 Water Power (Purchased)
111 Miscellaneous Supplies
112 Repairs
113 Replacements
114 Depreciation
115 Taxes
116 Insurance

Credits:
Electric Power
Ground Wood Raw Slush
Paper

ACCOUNT BB—STEAM POWER PRODUCTION
The items composing this account are classified as follows:

Debits:
1 Coal
2 Fuel Oil
3 Fuel Wood
101 Labor
110 Lubricants
111 Miscellaneous Supplies
112 Repairs
113 Replacements
114 Depreciation
115 Taxes
116 Insurance

Credits:
Electric Power
Prepared Wood
Ground Wood Raw Slush
Sulphite Raw Slush
Paper

ACCOUNT CC—ELECTRIC POWER PRODUCTION
The items composing this account are classified as follows:

Debits:
101 Labor
102 Water Power
103 Steam Power
104 Electric Power (Purchased)
110 Lubricants
111 Miscellaneous Supplies
112 Repairs
113 Replacements
114 Depreciation
115 Taxes
116 Insurance

Credits:
Prepared Wood
Ground Wood Raw Slush
Ground Wood Deckered Slush
Ground Wood Lapped Stock
Sulphite Raw Slush
Sulphite Deckered Slush
Sulphite Lapped Stock
Paper
ACCOUNT DD—PREPARED WOOD

Due to the dissimilar conditions surrounding the production of Prepared Wood in the different mills, no attempt has been made to standardize the accounting methods to be used. It is recommended that a Prepared Wood Account be kept which will show at the end of the year the average cost per cord of 128 cubic feet Prepared Wood. Such cost to include all expenses in connection with wood up to the point of delivery to the grinder room or chipper room. Prepared Wood should be charged with Water Power, Steam Power and Electric Power consumed, with insurance on wood pile and wood rooms and with depreciation on wood handling equipment.

It is recommended that the wood used in the manufacture of pulp be credited to this account at the estimated average cost per cord and that at the end of the year any profit or loss shown in this account be used as an adjustment of the cost of production for the year.

ACCOUNT EE—GROUND WOOD PRODUCTION

This account is divided into three sections, as follows:
Section (a) Cost of Raw Slush.
Section (b) Cost of Deckered Slush.
Section (c) Cost of Lapped Stock.

The items composing these sections are classified as follows:

SECTION (a) COST OF RAW SLUSH

Dr. 4 Prepared Wood
  " 101 Labor
  " 102 Water Power
  " 103 Steam Power
  " 104 Electric Power
  " 105 Pulp Stones
  " 106 Screen Plates
  " 109 Belting
  " 110 Lubricants
  " 112 Repairs
  " 113 Replacements
  " 114 Depreciation
  " 115 Taxes
  " 116 Insurance
  " 117 Manufacturing Burden
Cr. Deckered Slush—Section (b)
  " Lapped Stock—Section (c)
  " *Screenings

SECTION (b) COST OF DECKERED SLUSH

Dr. 5 Raw Slush
  " 101 Labor
  " 104 Electric Power
  " 107 Wires
  " 112 Repairs
  " 113 Replacements
Cr. Used in Newsprint
  " Used in Other Papers

SECTION (c) COST OF LAPPED STOCK

Dr. 5 Raw Slush
  " 101 Labor
  " 104 Electric Power

* See Treatment of Screenings.
Dr. 107 Wires
" 108 Machine Clothing
" 112 Repairs
" 113 Replacements
Cr. Lapped Ground Wood (own make) Inventory
" *Conversion Cost Chargeable to Screenings

ACCOUNT FF—SULPHITE PRODUCTION

This account is divided into three sections, as follows:
Section (a) Cost of Raw Slush
Section (b) Cost of Deckered Slush
Section (c) Cost of Lapped Stock

The items composing these sections are classified as follows:

SECTION (a) COST OF RAW SLUSH
Dr. 4 Prepared Wood
" 6 Sulphur
" 7 Lime and Limestone
" 101 Labor
" 103 Steam Power
" 104 Electric Power
" 106 Screen Plates
" 109 Belting
" 110 Lubricants
" 112 Repairs
" 113 Replacements
" 114 Depreciation
" 115 Taxes
" 116 Insurance
" 117 Manufacturing Burden
Cr. Deckered Slush—Section (b)
" Lapped Stock—Section (c)
" *Screenings

SECTION (b) COST OF DECKERED SLUSH
Dr. 8 Raw Slush
" 101 Labor
" 104 Electric Power
" 107 Wires
" 112 Repairs
" 113 Replacements
Cr. Used in Newsprint
" Used in Other Papers

SECTION (c) COST OF LAPPED STOCK
Dr. 8 Raw Slush
" 101 Labor
" 104 Electric Power
" 107 Wires
" 108 Machine Clothing
" 112 Repairs
" 113 Replacements
Cr. Lapped Sulphite (Own Make) Inventory
" *Conversion Sulphite (Own Make) Inventory

* See Treatment of Screenings.
TREATMENT OF GROUND AND SULPHITE SCREENINGS

Where Screenings have a market value in excess of the cost of lapping, such excess should be credited to the Cost of Raw Slush before the cost of that product is determined.

Screenings are generally lapped on the same equipment that is used for lapping merchantable pulp and, therefore, if cost of lapping Screenings be credited to the total lapping cost, the amount remaining will be the amount applicable to merchantable pulp. In order to determine the amount of this credit, the sum of the items of Conversion Expense in Section C, namely:—

(101) Labor, (104) Electric Power, (107) Wires, (108) Machine Clothing, (112) Repairs, and (113) Replacements, is divided by the total tonnage of Merchantable Pulp and Screenings lapped and an average cost per ton determined. This average, multiplied by the tonnage of Screenings lapped, will give the cost of lapping Screenings.

An account should be kept for Screenings and should be charged with the cost of lapping and the excess value above such cost, and should be credited with the amount sold or used, leaving a balance representing inventory.

ACCOUNT GG—NEWSPRINT ROLLS PRODUCTION

This account is divided into two sections, as follows:

Section (a) Cost of Unfinished Rolls
Section (b) Cost of Finished Rolls

The items composing these sections are classified as follows:

SECTION (a) COST OF UNFINISHED ROLLS

Dr. 9 Ground Wood (Deckered Slush) Own Make
    " 10 Ground Wood (Lapped) Own Make
    " 11 Ground Wood (Lapped) Purchased
    " 12 Sulphite (Deckered Slush) Own Make
    " 13 Sulphite (Lapped) Own Make
    " 14 Sulphite (Lapped) Purchased
    " 15 Waste Paper
    " 16 Fillers
    " 17 Alum
    " 18 Bleaching
    " 19 Color
    " 20 Sizing
    " 101 Labor
    " 103 Steam Power
    " 104 Electric Power
    " 106 Screen Plates
    " 107 Wires
    " 108 Machine Clothing
    " 109 Belting
    " 110 Lubricants
    " 112 Repairs
    " 113 Replacements
    " 114 Depreciation
    " 115 Taxes
    " 116 Insurance
    " 117 Manufacturing Burden
Cr. Finished Rolls—Section (b)
    " Unfinished Newsprint Roll Inventory

SECTION (b) COST OF FINISHED ROLLS

Dr. 21 Newsprint Rolls (Unfinished)
    " 22 Wrappers
    " 23 Cores
    " 24 Sundry Finishing Material
    " 101 Labor
Cr. Finished Rolls Inventory
The Cost of Unfinished Rolls—Section (a)—is calculated on the basis of actual paper made.

The Cost of Finished Rolls—Section (b)—is calculated on the basis of a Commercial Ton of Paper, including Wrappers but excluding Cores.

ACCOUNT HH—NEWSPRINT SHEET PRODUCTION

This account is kept by mills manufacturing sheets and is intended to show the average cost per ton of sheets produced. It has been found desirable in some mills, where several types of sheets are produced and where finishing processes vary, to find the cost for specific lots. In that case this control account may be supported by cost sheets for each lot.

Waste Paper, resulting from cutting rolls into sheets, should be credited to this account on the basis of the market value of such waste before the average cost per ton of sheets is determined.

This account is classified as follows:

Dr. 21 Unfinished Newsprint Rolls
     22 Wrappers
     23 Sundry Material
     101 Labor
     104 Electric Power
Cr. Waste Paper
    Newsprint Sheets Inventory

COMMERCIAL COST OF SALES

For the purpose of determining the Commercial Cost of Sales the accounts outlined below should be kept.

SHIPPING EXPENSE

This account is charged with all material, labor and expense in connection with loading and shipping finished products. In arriving at a commercial cost such expense, unless specifically chargeable, should be divided between products on a tonnage basis.

SELLING EXPENSE

Any selling expenses such as Salaries in Sales Offices, Advertising, Rent, Stationery and Printing, Telephone and Telegraph, etc., are included under this heading, and in arriving at a commercial cost, where not specifically assignable, should be distributed between products sold on a basis of relative selling price.

ADMINISTRATION AND GENERAL EXPENSE

Expenses of this nature should not be included in manufacturing burden, and in arriving at a commercial cost should be divided between products sold on the basis of relative Manufacturing Costs, and Selling Expenses. Under this heading are included Salaries of General Officers not assigned to production or sales

Accounting Department
Legal Expense
General Office Rent
Telephone and Telegraph
Stationery and General Office Supplies
Bank Charges
Capital Stock Taxes
Mercantile Agencies
Association Dues
Collection Expense
Etc.
DETAILS OF PRODUCTION ACCOUNTS

(1) COAL

Account BB—Steam Power. This item is charged with the coal consumed during the month in the production of Steam and Coal Inventory is credited.

(2) FUEL OIL

Account BB—Steam Power. This item is charged with the Fuel Oil consumed during the month in the production of Steam and Fuel Oil Inventory is credited.

(3) FUEL WOOD

Account BB—Steam Power—This item is charged with Fuel Wood consumed during the month in the production of Steam and Fuel Wood Inventory is credited.

(4) PREPARED WOOD

Account EE — Ground Wood Section (a)—This item is charged with the estimated cost of Prepared Wood used in the manufacture of Ground Wood Raw Slush and Account DD Prepared Wood is credited. Standard cords of 128 cubic feet.

Account FF—Sulphite Section (a)—This item is charged with the estimated cost of Prepared Wood used in the manufacture of Sulphite Raw Slush and Account DD Prepared Wood is credited. Standard cords of 128 cubic feet.

(5) GROUND WOOD RAW SLUSH

Account EE — Ground Wood Section (b)—This item is charged with the cost of Ground Wood Raw Slush deckered, and Section (a) of the same account is credited.

Account EE — Ground Wood Section (c)—This item is charged with the cost of Ground Wood Raw Slush lapped, and Section (a) of the same account is credited.

(6) SULPHUR

Account FF—Sulphite Section (a)—This item is charged with the cost of Sulphur used in the manufacture of Sulphite Slush and Sulphur Inventory is credited.

(7) LIME AND LIMESTONE

Account FF—Sulphite Section (a)—This item is charged with the cost of Lime or Limestone used in the manufacture of Sulphite Slush and Lime and Limestone Inventories are credited.

(8) SULPHITE RAW SLUSH

Account FF—Sulphite Section (b)—This item is charged with the cost of Sulphite Raw Slush deckered, and Section (a) of the same account is credited.

Account FF—Sulphite Section (c)—This item is charged with the cost of Sulphite Raw Slush Lapped and Section (a) of the same account is credited.

(9) GROUND WOOD (DECKERED SLUSH) OWN MAKE

Account GG—Section (a)—Unfinished Rolls. This item is charged at cost or at a transfer value with the amount used in the manufacture of rolls. If charged at cost, Account EE—Section (b) is credited with the full amount. If charged at a transfer value, Reserve for Interdepartmental Profit and Loss on Newsprint (see Addenda) is charged or credited with the difference between cost and such transfer value, according as the price is above or below cost.
(10) GROUND WOOD (LAPPED) OWN MAKE

Account GG—Section (a)—Unfinished Rolls. This item is charged at cost or at a transfer value with the amount used in the manufacture of rolls. If charged at cost Lapped Ground Wood (Own Make) Inventory is credited with the full amount. If charged at a transfer value Reserve for Interdepartmental Profit and Loss on Newsprint (see Addenda) is charged or credited with the difference between cost and such transfer value according as the price is above or below cost.

(11) GROUND WOOD (LAPPED) PURCHASED

Account GG—Section (a)—Unfinished Rolls. This item is charged at cost with the amount used in the manufacture of rolls and Lapped Ground Wood (Purchased) Inventory is credited.

(12) SULPHITE (DECKERED SLUSH) OWN MAKE

Account GG—Section (a)—Unfinished Rolls. This item is charged at cost or at a transfer value with the amount used in the manufacture of rolls. If charged at cost, Account EE—Section (b) is credited with the full amount. If charged at a transfer value, Reserve for Interdepartmental Profit and Loss on Newsprint (see Addenda) is charged or credited with the difference between cost and such transfer value according as the price is above or below cost.

(13) SULPHITE (LAPPED) OWN MAKE

Account GG—Section (a)—Unfinished Rolls. This item is charged at cost or at a transfer value with the amount used in the manufacture of rolls. If charged at cost Lapped Sulphite (Own Make) Inventory is credited with the full amount. If charged at a transfer value Reserve for Interdepartmental Profit and Loss on Newsprint (see Addenda) is charged or credited with the difference between cost and such transfer value according as the price is above or below cost.

(14) SULPHITE (LAPPED) PURCHASED

Account GG—Section (a)—Unfinished Rolls. This item is charged at cost with the amount used in the manufacture of rolls and Lapped Sulphite (Purchased) Inventory is credited.

(15) WASTE PAPER

Account FF—Section (a)—Newsprint Rolls. This is charged with waste paper consumed in the manufacture of Newsprint Rolls and Waste Paper Inventory is credited.

(16) FILLERS

Account GG—Section (a)—Newsprint Rolls. This item is charged with Fillers consumed in the manufacture of Newsprint Rolls and Fillers Inventory is credited.

(17) ALUM

Account GG—Section (a)—Newsprint Rolls. This item is charged with Alum consumed in the manufacture of Newsprint Rolls and Alum Inventory is credited.

(18) BLEACHING

Account GG—Section (a)—Newsprint Rolls. This item is charged with Bleaching Materials consumed in the production of Newsprint Rolls and Bleaching Inventory is credited.
(19) COLOR
Account GG—Section (a)—Newsprint Rolls. This item is charged with color consumed in the manufacture of Newsprint Rolls and Color Inventory is credited.

(20) SIZING
Account GG—Section (a)—Newsprint Rolls. This item is charged with Sizing consumed in the manufacture of Newsprint Rolls and Sizing Inventory is credited.

(21) UNFINISHED ROLLS
Account GG—Section (b). This item is charged with the cost of Unfinished Rolls finished and Section (a) of the same account is credited.
Account HH—This item is charged with the cost of Unfinished Rolls used in making sheets and Unfinished Rolls Inventory is credited.

(22) WRAPPERS
Account GG—Section (b). This item is charged with the cost of wrappers used in finishing of Rolls and Wrappers Inventory is credited.
Account HH. This item is charged with the cost of wrappers used in finishing Sheets and Wrappers Inventory is credited.

(23) CORES
Account GG—Section (b)—Cores should be billed separately from paper and this item is chargeable only with the estimated annual depreciation on iron, wood and paper cores and with expenses in connection with returned cores. Such depreciation and expense should be taken up on a tonnage basis.

(24) SUNDRY FINISHING MATERIALS
Account GG—Section (b). This item is charged with all other materials used in finishing Rolls such as Paste, Glue, etc., and Finishing Materials Inventory is credited.
Account HH. This item is charged with all other materials used in finishing sheets and Finishing Materials Inventory is credited.

(101) LABOR (Manufacturing)
The general payroll should be so classified that each account and section thereof can be charged with all labor applicable to the process. Labor not specifically assignable should be charged to Manufacturing Burden. The divisions below show the items of labor chargeable to the various accounts. If desired analysis of labor may be shown on the cost sheet according to respective operations in the processes.
Labor in Repairs or Replacements is not included under this heading but is chargeable to the cost of repairs or replacements as described later.
Account AA—Water Power. This item is charged with labor in connection with conduits and water wheels.
Account BB—Steam Power. This item is charged with labor of fireroom engineers and assistants, water tenders, firemen, coal handlers, ash handlers, boiler cleaners, feed pump men, etc.
Account CC—Electric Power. This item is charged with all labor of operating prime movers in the electric plant, generators, switchboards, etc.
Account EE—Ground Wood—Section (a) Slush. This item is charged with all labor in Grinder Room and Screen Room and such miscellaneous labor as is directly applicable to the production of Ground Wood Slush.

Account EE—Ground Wood—Section (b) Deckers. This item is charged with all labor in the operation of Ground Wood Deckers.

Account EE—Ground Wood—Section (c) Laps. This item is charged with all labor in connection with Wet Presses and Hydraulic Presses and with the Piling of Lapped Stock.

Account FF—Sulphite—Section (a) Slush. This item is charged with all labor in Chipper Room, Acid Systems, Digesters, Screen Room and such miscellaneous labor as is directly applicable to the production of Sulphite Slush.

Account FF—Sulphite—Section (b) Deckers. This item is charged with all labor employed in the operation of Sulphite Deckers.

Account FF—Sulphite—Section (c) Laps.—This item is charged with all labor in connection with Wet Presses, Hydraulic Presses and with the Piling of Lapped Stock.

Account GG—Newsprint Rolls—Section (a). This item is charged with all labor in Beater and Machine Rooms.

Account GG—Newsprint Rolls—Section (b). This item is charged with all labor employed in the finishing of rolls.

Account HH—Newsprint Sheets. This item is charged with all labor employed in cutting and finishing Newsprint sheets.

(102) WATER POWER

At the end of the month Account AA, Water Power Production, is closed and the total cost is distributed to the processes using such power. The unit cost per horse-power hour is determined and the charges to the various processes are made on the basis of the quantity used by each. This system provides only for distribution between

Account CC—Electric Power
Account EE—Ground Wood
Account GG—Paper

The scheme is capable, however, of being adapted to the needs of the accounting company.

(103) STEAM POWER

At the end of the month Account BB, Steam Power Production, is closed and the total cost is distributed to the processes using such power. The unit cost per thousand feet of steam generated is determined and the charges to the various processes are made on the basis of the quantity consumed by each. This system provides for distribution between

Account CC—Electric Power
Account EE—Ground Wood
Account FF—Sulphite
Account GG—Newsprint Rolls

However, the scheme may be expanded to meet the needs of the accounting company.

(104) ELECTRIC POWER

At the end of the month Account CC, Electric Power Production, is closed and the total cost distributed to the processes using such power. The unit cost per kilowatt hour is determined and the charges to the various processes are made on the basis of the
quantity consumed by each. This system provides for distribution between

Account EE—Ground Wood—Sections (a), (b), and (c)
Account FF—Sulphite—Sections (a), (b), and (c)
Account GG—Newsprint Rolls—Sections (a) and (b)
Account HH—Newsprint Sheets

As in previous accounts the scheme is capable of expansion.

(105) PULP STONES
Account EE—Ground Wood—Section (a). This item is charged with the cost of Pulp Stones used in the manufacture of Ground Wood Slush and Pulp Stones Inventory is credited.

(106) SCREEN PLATES
Account EE—Ground Wood—Section (a)
Account FF—Sulphite—Section (a)
Account GG—Newsprint Rolls—Section (a). These items are charged with the cost of Screen Plates used in the manufacture of the above products and Screen Plates Inventory is credited.

(107) WIRES
Account EE—Ground Wood—Sections (b) and (c)
Account FF—Sulphite—Sections (b) and (c)
Account GG—Newsprint Rolls—Section (a). These items are charged with the cost of wires used in the manufacture of the above products and Wires Inventory is credited.

(108) MACHINE CLOTHING
Account EE—Ground Wood—Section (c)
Account FF—Sulphite—Section (c)
Account GG—Newsprint Rolls—Section (a). These items are charged with the cost of Machine Clothing used in the manufacture of the above products and Machine Clothing Inventory is credited.

(109) BELTING
Account EE—Ground Wood—Section (a)
Account FF—Sulphite—Section (a)
Account GG—Newsprint Rolls—Section (a). These items are charged with the cost of belting and belting supplies renewed and Belting Inventory is credited.

(110) LUBRICANTS
Account BB—Steam Power
Account CC—Electric Power
Account EE—Ground Wood—Section (a)
Account FF—Sulphite—Section (a)
Account GG—Newsprint Rolls—Section (a). These items are charged with the cost of lubricants used and Lubricants Inventory is credited.

(111) MISCELLANEOUS SUPPLIES
Manufacturing Burden:
Account AA—Water Power
Account BB—Steam Power
Account CC—Electric Power

These items are charged with the cost of supplies not specifically enumerated, such as Rubber Boots, Oil Cans, Waste, Shovels, Brooms, Lanterns, etc., and Miscellaneous Supplies Inventory is credited.
Distinction Between Additions and Improvements, Repairs and Replacements

Additions and Improvements

The term "Additions and Improvements" embraces all such expenditures made for New Buildings and Machinery, Additions to Existing Buildings and Machinery, and Excess Value of Replacements when a replacement made exceeds the amount it would have cost to replace the property as it was originally constructed. Such additions and improvements should increase the standard of earning power of the original investment in the mill either by enlarged facilities or by substantially decreasing costs and expenses.

Repairs (Material and Labor)

This includes all current expenditures recurring from day to day on the general upkeep of existing properties, without the entire replacement of any substantial part or unit thereof, as outlined under "Replacements." It will, of course, include certain replacements of small parts that are not substantial parts or units, and all necessary repairs resulting from breaks, leaks and other various causes to the small parts of buildings and machinery.

Replacements (Material and Labor)

This includes all substitutions for capital exhausted or become inadequate in service, the substitutions having substantially no greater capacity than the things for which they were substituted. When a substitute has a substantially greater capacity than that for which it is substituted, the cost of an article of the same capacity as the one replaced would constitute a replacement, the remaining portion of the cost of the actual substitute would constitute an improvement.

There are no hard or fixed lines that can be drawn between "Replacements" and "Repairs," but those substantial portions of a building or machine that tend to prolong the entire life of the building or machinery must be taken as the basis. The replacement of a bolt, nut, screw or some other small part of a machine would be a repair, not a replacement; but if the unit or part itself was replaced it would be a replacement, provided the replacement of the part was made because it had become obsolete or inadequate, or because it had become broken or worn out through the general operation of the machinery. If the part was broken through accident, it would be a repair and should not be charged as a replacement.

The units of a building are its walls, floors, roofs, doors and windows, and the replacement of any of these parts in whole may be chargeable as a replacement.

The units of a machine are the separate substantial parts of the machine which serve separately in its construction or operation. These do not, of course, embrace bolts, nuts, screws or such small parts as belong to units or substantial parts, but the larger parts necessary to the main operation of the machine, and the replacement of any such parts is properly a charge to Replacements. For example, if one or two boiler tubes were replaced, it would be a Repair, but if all the tubes, or the major part of them, were replaced it would be a Replacement.

The cost of Additions and Improvements, Replacements or Repairs, when made by the accounting company, should include cost of labor expended and material used, less salvage, if any.

It is recommended that a job order which will fully describe the character of the work and show the material and labor con-
sumed be kept for each replacement and addition and improvement made.

Whether Replacements shall be charged to costs or not is left to the judgment of the accounting company. But where they are of substantial amounts it is recommended that they be spread over a period of time in order that the costs in any one month may not violently fluctuate. This applies to extraordinary repairs as well as replacements.

Provisions are made in these accounts for charging Repairs and Replacements to the following:

- Account AA—Water Power
- Account BB—Steam Power
- Account CC—Electric Power
- Account DD—Prepared Wood
- Account EE—Ground Wood—Sections (a), (b), and (c)
- Account FF—Sulphite—Sections (a), (b), and (c)
- Account GG—Newsprint Rolls—Sections (a) and (b)

Distribution between processes should be made direct wherever possible, and where not, the item should be charged to Manufacturing Burden and distributed with other items of that account.

(114) DEPRECIATION

Depreciation should be charged to the various processes upon the basis of the total value of equipment in each, and should be charged to the various accounts as outlined below.

Account AA—Water Power. This item is charged with one-twelth of the estimated annual depreciation on dams, waterways, etc.

Account BB—Steam Power. This item is charged with one-twelth of the estimated annual depreciation on boilers, boiler room equipment, ash conveyors, coal conveyors and steam plant structure.

Account CC—Electric Power. This item is charged with one-twelth of the estimated annual depreciation on all prime movers used in generating electric power, dynamos, switchboards, transformers, transmission lines and electric plant structures.

Account EE—Ground Wood—Section (a). The total estimated depreciation per annum on Ground Wood equipment should be divided by the estimated annual production in tons and a unit cost per ton determined. The actual tonnage production for the month should be multiplied by this unit cost per ton to arrive at the monthly charge. Any excess or shortage at the end of the year can be provided for by a retroactive adjustment.

Account FF—Section (a) Sulphite
Account GG—Section (a) Newsprint Rolls

The depreciation charges to these accounts should be determined in a similar manner to that described above for Account EE Ground Wood.

(115) TAXES

A general account for taxes on land, buildings, etc., is set up on the books and is charged with all payments thereof. The account is credited each month with the estimated amount accrued which is distributed to

- Account AA—Water Power
- Account BB—Steam Power
- Account CC—Electric Power
- Account DD—Prepared Wood
Account EE—Ground Wood—Section (a)
Account FF—Sulphite—Section (a)
Account GG—Newsprint Rolls—Section (a)
in accordance with the estimated taxable value of the property used by each process. Excess Profits, Income or Business Profits Taxes are not included under this heading.

(116) INSURANCE

A general account for Prepaid Insurance is set up on the books for all fire, accident and employers’ liability insurance, and is charged with all premiums paid. The account is credited each month with the proportion expired which is distributed to
Account AA—Water Power
Account BB—Steam Power
Account CC—Electric Power
Account DD—Prepared Wood
Account EE—Ground Wood—Section (a)
Account FF—Sulphite—Section (a)
Account GG—Newsprint Rolls—Section (a)
in accordance with the estimated insurable value of the property used by each process.

(117) MANUFACTURING BURDEN

An account is kept for Manufacturing Burden to which is charged all items of manufacturing expenses not directly applicable to production accounts. The classification of such charges is governed entirely by the conditions surrounding each mill and therefore only a general idea can be given. The following is an outline of some items within the meaning of this account and it is recommended that a similar analysis be kept:

- Mill Superintendence
- Mill Office Salaries and Expenses
- Chemical Laboratory Salaries and Expense
- Barn and Teaming
- Switching
- Demurrage
- Miscellaneous Supplies
- General Repairs not specifically applied
- Yard Expense
- Purchasing Department
- Salaries of Officers assigned to Manufacturing
- Profit or Loss on Hotel and Boarding Houses
- Profit or Loss on Theaters
- Profit or Loss on Townsites
- School Taxes
- Etc.

This account is credited with the amounts distributed to
Account EE—Ground Wood Production—Section (a)
Account FF—Sulphite Production—Section (a)
Account GG—Newsprint Rolls Production—Section (a)

It is recommended that this account be worked on a budget scheme and that one-twelfth the estimated annual total be written off each month. Distribution between Ground Wood, Sulphite and Paper should be made on a tonnage basis figuring two tons of Ground Wood as equal to one ton of Sulphite or Paper.
ADDENDA

INSTRUCTIONS FOR HANDLING INTER-DEPARTMENTAL PROFITS AND LOSSES

It has been found necessary to provide for unusual conditions arising in the accounting systems of some of the large companies, as described below.

Case 1. Where a company owning several mills, each having an independent accounting system, transfers Ground Wood or Sulphite between mills at a value greater or less than cost, commonly known as a transfer value, thus creating an intermill profit or loss.

Case 2. Where a mill manufacturing Ground Wood, Sulphite and Paper charges such Ground Wood and Sulphite to Paper at a transfer price, thus creating an interdepartmental profit or loss.

The following accounts are used in Case 1. Inasmuch as Ground Wood and Sulphite are handled in an identical manner, the illustration serves for both:

TRANSFERS OUT (Ground Wood)
TRANSFERS OUT (Sulphite)

These accounts are kept by the shipping mill and are charged with:
1. The actual cost of the product shipped.
2. With the balance of profit at the end of the month if the shipments have been billed above cost. Such profit being transferred to the receiving mill or general office books.

The accounts are credited with:
1. With the billing of products shipped.
2. With balance of loss for the month if shipments have been billed below cost. Such loss being transferred to the receiving mill or general office books.

TRANSFERRED GROUND WOOD INVENTORY
TRANSFERRED SULPHITE INVENTORY

These accounts are kept by the receiving mill and are charged with:
1. With products received by transfer at billing price and with freight and cartage thereon.

These accounts are credited with: Amount used in the manufacture of paper
RESERVE FOR TRANSFERRED GROUND WOOD INVENTORY

RESERVE FOR TRANSFERRED SULPHITE INVENTORY

These accounts are kept by the receiving mill and intended to show the amount by which the Inventories of Transferred Products are over or understated. These accounts are charged or credited as follows.

If the transfers received during the month were billed above cost these accounts are credited with the profit transferred from the shipping mill.

If the transfers received during the month were billed below cost, these accounts are charged with the loss transferred from the shipping mill.

After the above items are entered the account will show a debit or a credit balance accordingly as the Inventory Accounts of Transferred Products have been over or undercharged. For instance, if Mill A has shipped to Mill C 20 tons at $10.00 above cost and Mill B has shipped Mill C 30 tons at $10.00 below cost, the entries to this account at Mill C would be

30 tons at $10.00 below = $300.00 debit,
20 tons at $10.00 above = $200.00 credit.

Balance 50 tons at $2.00 below = $100.00 debit, or in other words the average ton of product received during the month was billed at $2.00 below cost.

This account is further charged or credited with the amount of profit or loss on transferred products used in the manufacture of paper. In the example shown above, suppose 40 of the tons to have been used in Newsprint Paper:

50 tons at $2.00 below = $100.00 debit,
40 tons at $2.00 below = $80.00 credit.

Balance 10 tons at $2.00 below = $20.00 debit, representing the amount by which the remaining inventory is understated. The credit of $80.00 is charged to Reserve for Interdepartmental Profit or Loss on Newsprint Rolls and represents the amount of loss by which the cost of Newsprint Rolls is understated.

The following account is used in connection with Case 1 and also provides for Case 2.

RESERVE FOR INTERDEPARTMENTAL PROFIT OR LOSS ON NEWSPRINT

This account should show at the end of each month all profit or loss taken on interdepartmental or intermill transactions. It is charged with:

1. The amount transferred from Inventory Reserve in Case 1 when the transactions result in a loss.
2. With the difference between cost and the transfer price used in Case 2 when the transaction results in a loss.
The account is credited with:
1. The amount transferred from Inventory Reserve in Case 1 when the transaction results in a profit.
2. With the difference between cost and the transfer price used in Case 2 where the transaction results in a profit.
The Forms shown in the Exhibits enumerated below are part of the accounting system, and serve to show the information which should be available at the end of each period. The statistical data given has been found desirable in some mills and may be elaborated to suit individual requirements.

Exhibit AA—WATER POWER
Exhibit BB—STEAM POWER
Exhibit CC—ELECTRIC POWER
Exhibit EE—GROUND WOOD
Exhibit FF—SULPHITE
Exhibit GG—NEWSPRINT ROLLS
Exhibit HH—NEWSPRINT SHEETS

### EXHIBIT AA

### WATER POWER

<table>
<thead>
<tr>
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<th>191</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONTH TO DATE</td>
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</tr>
<tr>
<td>PERIOD TO DATE</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>MONTH TO DATE</th>
<th>PERIOD TO DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
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<td></td>
</tr>
<tr>
<td>Water Power (Purchased)</td>
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<td></td>
</tr>
<tr>
<td>Repairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replacements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes</td>
<td></td>
<td></td>
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<tr>
<td>Insurance</td>
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<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>H. P. CONSUMED</th>
<th>DISTRIBUTION OF COST FOR MONTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground Wood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric Power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unit Cost Per H. P. Hour
## EXHIBIT BB

### STEAM POWER

**Month of: 191**

<table>
<thead>
<tr>
<th>Item</th>
<th>MONTH TO DATE</th>
<th>PERIOD TO DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel Oil</td>
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<td></td>
</tr>
<tr>
<td>Labor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lubricants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous Supplies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replacements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
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<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
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<td></td>
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### DISTRIBUTION

<table>
<thead>
<tr>
<th>Item</th>
<th>TONS PRODUCED</th>
<th>M. LBS. STEAM USED</th>
<th>LBS. COAL PER TON PRODUCED</th>
<th>DISTRIBUTION OF COST FOR MONTH</th>
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</thead>
<tbody>
<tr>
<td>Paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulphite</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground Wood</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepared Wood</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### COST OF STEAM

- **Cost of Steam per 1,000 lbs.**
- **Lbs Water Evaporated**
- **Lbs. Water Evaporated per lb. Coal Combustible**
- **Lbs. Water Evaporated per lb. Coal Actual**

## EXHIBIT CC

### ELECTRIC POWER

**Month of: 191**

<table>
<thead>
<tr>
<th>Item</th>
<th>MONTH TO DATE</th>
<th>PERIOD TO DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steam Power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric Power (Purchased)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lubricants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous Supplies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replacements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
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<td></td>
</tr>
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</table>

### DISTRIBUTION

<table>
<thead>
<tr>
<th>Item</th>
<th>TONS USBD</th>
<th>K. W. HOURS PRODUCED</th>
<th>K. W. HOURS PER TON PRODUCED</th>
<th>DISTRIBUTION OF COST FOR MONTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulphite</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground Wood</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepared Wood</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### COST OF ELECTRICITY

- **Cost of Electricity per K. W. hour**

---

Page 26
## EXHIBIT EE
### GROUND WOOD

Month of: 191

<table>
<thead>
<tr>
<th>TIME RECORD</th>
<th>GRINDER HOURS</th>
<th>PRODUCTION</th>
<th>MONTH</th>
<th>PERIOD TO DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Run</td>
<td></td>
<td>Number 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sundays and Holidays</td>
<td></td>
<td>Number 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shut Down for Power</td>
<td></td>
<td>Total Merchantable Pulp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shut Down for Other Reasons</td>
<td></td>
<td>Screenings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>Production of Merchantable Pulp</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MANUFACTURING COST OF RAW SLUSH:

**Stock:**
- Prepared Wood, Cords

**Conversion:**
- Labor
- Water Power
- Steam Power
- Electric Power
- Pulp Stones
- Screen Plates
- Belting
- Lubricants
- Repairs
- Replacements
- Depreciation
- Taxes
- Insurance
- Manufacturing Burden

**Total Conversion**

**TOTAL**

**Deduct: Screenings**

**TOTAL MANUFACTURING COST OF RAW SLUSH**

**Tons Produced**

### MANUFACTURING COST OF DECKERED SLUSH:

**Stock:**
- Raw Slush—Tons

**Conversion:**
- Labor
- Electric Power
- Wires
- Repairs
- Replacements

**Total Conversion**

**TOTAL MANUFACTURING COST OF DECKERED SLUSH**

**Tons Produced**

**Used in Newsprint—Tons**

**Used in Other Papers—Tons**

### MANUFACTURING COST OF LAPPED STOCK:

**Stock:**
- Raw Slush—Tons

**Conversion:**
- Merchantable Pulp—Tons
- Screenings—Tons
- Labor
- Electric Power
- Wires
- Machine Clothing
- Repairs

**Total Conversion**

**Deduct: Cost of Lapping Screenings—Tons**

**Conversion Cost of Merchantable Pulp—Tons**

**TOTAL MANUFACTURING COST OF LAPPED STOCK**

**Add: Inventory—Beginning**

**TOTAL**

**Deduct: Inventory—End**

**TOTAL**

**Deduct: Used in Paper, etc.—Tons**

**MANUFACTURING COST OF SALES—Tons**

**SHIPPING EXPENSE**

**SELLING EXPENSE**

**ADMINISTRATION AND GENERAL EXPENSES**

**COMMERCIAL COST OF SALES**

**NET INCOME FROM SALES**

**SALES**

---

Page 27
# Exhibit FF

## Sulphite

**Month of:** 191

<table>
<thead>
<tr>
<th>Time Record</th>
<th>Digester Hours</th>
<th>Production</th>
<th>Month To Date</th>
<th>Period To Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Run</td>
<td></td>
<td>No. 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shut down for Filling</td>
<td></td>
<td>No. 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shut down for Repairs</td>
<td></td>
<td>Total Merchantable Pulp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shut down for Sundays and Holidays</td>
<td></td>
<td>Screenings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shut down for other Reasons</td>
<td></td>
<td>Production of Merchantable Sulphite:</td>
<td>Per Cord of Wood</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>Per Digester Cook</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Cooks</td>
<td></td>
<td>Sulphur Used per Ton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Time per Cook</td>
<td></td>
<td>Lime Used per Ton</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Manufacturing Cost of Raw Slush:

**Stock:**
- Prepared Wood, Cords
- Sulphur
- Lime and Limestone

**Total Stock**

### Conversion:
- Labor
- Steam Power
- Electric Power
- Screen Plates
- Belting
- Lubricants
- Repairs
- Replacements
- Depreciation
- Taxes
- Insurance
- Manufacturing Burden

**Total Conversion**

**Total**

**Deduct:** Screenings

**Total Manufacturing Cost of Raw Slush**

**Tons Produced**

### Manufacturing Cost of Deckered Slush:

**Stock:**
- Raw Slush—Tons

**Conversion:**
- Labor
- Electric Power
- Wires
- Repairs
- Replacements

**Total Conversion**

**Total Manufacturing Cost of Deckered Slush**

**Tons Produced**

**Used in Newsprint, Tons**

**Used in other Papers, Tons**

### Manufacturing Cost of Lapped Stock:

**Stock:**
- Raw Slush—Tons

**Conversion:**
- Merchantable Pulp—Tons
- Labor
- Electric Power
- Wires
- Machine Clothing
- Repairs
- Replacements

**Total Conversion**

**Deduct:** Cost of Lapping Screenings—Tons

**Conversion Cost of Merchantable Pulp—Tons**

**Total Manufacturing Cost of Lapped Stock**

**Add:** Inventory—Beginning

**Total**

**Deduct:** Inventory—End

**Total**

**Deduct:** Used in Paper, etc.—Tons

### Manufacturing Cost of Sales—Tons

**Shipping Expense**

**Selling Expense**

**Administration and General Expense**

**Commercial Cost of Sales**

**Net Income from Sales**

**Sales**
## EXHIBIT GG
### NEWSPRINT ROLLS

#### Month of 191

### TIME RECORD

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<th>Machine No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<tr>
<td>Hours Run</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Shut down for Repairs</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Shut down for Machine Clothing</td>
<td></td>
<td></td>
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<tr>
<td>Shut down for Sundays and Holidays</td>
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<tr>
<td>Shut down for Other Reasons</td>
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</tbody>
</table>

### TOTAL HOURS

#### MANUFACTURING COST OF UNFINISHED ROLLS:

<table>
<thead>
<tr>
<th>Stock:</th>
<th>Conversion:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Wood (Deckered Slush)</td>
<td>Labor</td>
</tr>
<tr>
<td>Ground Wood (Lapped) Own Make</td>
<td>Steam Power</td>
</tr>
<tr>
<td>Ground Wood (Lapped) Purchased</td>
<td>Electric Power</td>
</tr>
<tr>
<td>Sulphite (Deckered Slush)</td>
<td>Screen Plates</td>
</tr>
<tr>
<td>Sulphite (Lapped) Own Make</td>
<td>Wires</td>
</tr>
<tr>
<td>Sulphite (Lapped) Purchased</td>
<td>Machine Clothing</td>
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<tr>
<td>Waste Paper</td>
<td>Belting</td>
</tr>
<tr>
<td>Fillers</td>
<td>Lubricants</td>
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<tr>
<td>Alum</td>
<td>Repairs</td>
</tr>
<tr>
<td>Bleaching</td>
<td>Replacements</td>
</tr>
<tr>
<td>Color</td>
<td>Depreciation</td>
</tr>
<tr>
<td>Size</td>
<td>Taxes</td>
</tr>
<tr>
<td>Total Stock</td>
<td>Insurance</td>
</tr>
<tr>
<td>Manufacturing Burden</td>
<td>Total Conversion</td>
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</table>

#### TOTAL MANUFACTURING COST OF UNFINISHED ROLLS—Tons

Deduct: Cost of Rolls not Finished—Tons.

### ROLLS FINISHED—Tons

#### FINISHING COST

<table>
<thead>
<tr>
<th>Wrappers</th>
<th>Cores</th>
</tr>
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<tr>
<td>Sundry Material</td>
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</table>

#### TOTAL FINISHING COST

#### TOTAL MANUFACTURING COST OF FINISHED ROLLS

| Gross Weight of Finished Rolls—Tons |
| Add: Inventory—Beginning |

#### TOTAL

Deduct: Inventory—End

### MANUFACTURING COST OF SALES—Tons

#### SHIPPING EXPENSE

#### SELLING EXPENSE

#### ADMINISTRATION AND GENERAL EXPENSE

#### COMMERCIAL COST OF SALES

#### NET INCOME FROM SALES

#### SALES

---

Page 29
EXHIBIT HH
NEWSPRINT SHEETS

<table>
<thead>
<tr>
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<th>AMOUNT</th>
<th>COST PER TON</th>
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<td>Stock: Unfinished Newsprint Rolls—Tons</td>
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<td>Finishing Cost: Wrappers</td>
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<tr>
<td>Sundry Finishing Material</td>
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<tr>
<td>Labor</td>
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</tr>
<tr>
<td>Electric Power</td>
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<tr>
<td>Total Finishing Cost</td>
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<tr>
<td>Deduct: Value of Waste Paper—Tons</td>
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<td><strong>TOTAL MFG. COST OF SHEETS—Tons</strong></td>
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<tr>
<td><strong>TOTAL</strong></td>
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<td>Deduct: Inventory—End</td>
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<td><strong>NET INCOME FROM SALES</strong></td>
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<tr>
<td><strong>SALES</strong></td>
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