

INSTRUCTIONS FOR THE QUARTERLY SURVEY OF PLANT CAPACITY UTILIZATION

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WHO SHOULD REPORT?

This report covers the manufacturing plant or publishing facility named in the address box of the form. If your company operates more than one location, **REPORT ONLY FOR THOSE PLANTS SELECTED FOR THIS SAMPLE SURVEY.** A report form and instruction sheet are enclosed for each plant selected. If the location in the address box is not a manufacturing plant or publishing facility, indicate this in the remarks section.

Since some of the information necessary to complete this form may not be in your records, **CONSULT THE PLANT MANAGER** on questions regarding full production capability and emergency production.

WHAT TO REPORT?

This survey form primarily asks for 2 levels of operating capability of this plant for the quarter :

- (1)** the market value of actual goods produced;
- (2)** the value of products that could have been produced if the plant was operating at full capacity during the quarter.

If prior quarter data are NOT printed on the form, you do not need to enter data for that period.

WHEN TO REPORT

Complete the survey form and return it in the enclosed return envelope by the date printed on the top of the form. If you have misplaced the return envelope, mail the completed form to:

U.S. Census Bureau
1201 East 10th Street
Jeffersonville, IN 47132-0001

You can also fax the form to:
1-800-447-4613

HOW TO REPORT

INTERNET REPORTING – We encourage you to complete this survey online at: www.census.gov/econhelp/pcu. We have provided your username and password on the front of the form under the address label.

Answer all questions on the report form. Follow the instructions for each item given on this sheet.

Report market value of production figures in **thousands of dollars**. For example, if value of production is 1,125,788 dollars, enter the figure as follows:

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NAME AND ADDRESS

Review the name and address of this plant printed in the top right corner of the report form. Line out any errors and make any necessary corrections or additions in the address box.

Item 1 – OPERATIONAL STATUS

Report the status of operations at this plant at the end of the quarter by marking the appropriate box. If:

In Operation – Complete items 2 through 6.

Idle Plants – Complete items 2 through 6.

- a.** If this plant was temporarily idle during the **entire quarter** report actual operations as zero where appropriate.
- b.** If this plant was temporarily idle during **only part of the quarter** report the actual operations for the time the plant was in operation.

For both cases, report full production capabilities based on the plant's **peak** quarterly production during the year.

Permanently Ceased Operations – Indicate the month and year when operations ceased at this plant. If the plant was in operation at ANY time during the quarter, complete items 2 through 6. Report full production capabilities as if the plant operated the **entire** quarter.

Item 1 – OPERATIONAL STATUS – Continued

Sold or Leased Plant – If this plant was sold or leased to another company, indicate the month and year this action took place, and the name and address of the new owner.

- a. If you still maintain records for this plant, complete items 2 through 6.
- b. If you do not have information about this plant, complete item 6 only and return the form.

SPECIAL NOTE:

Seasonal Operations

- a. If this plant is usually temporarily idle during the quarter *due to seasonal factors*, report as instructed for idle plants.
- b. If this plant was not temporarily idle during the quarter, but its operations vary substantially from quarter to quarter, *due to seasonal factors*, complete items 2 through 6, and report full production capabilities based on the plant's **peak** quarterly production during the year.

Item 2 – VALUE OF PRODUCTION

Item 2a – MARKET VALUE OF ACTUAL PRODUCTION

Report the value of production based on estimated sales price(s) of what was produced during the quarter, not quarter sales. If production at this plant consists of only interplant transfers, use method (2) below to calculate market value of production.

Three methods – to estimate market value of goods produced during the quarter:

- (1) Estimate the sales price(s) of item(s) produced, then multiply the sales price(s) by the total number of items produced during the quarter.
- (2) Use book figures of actual production costs plus an estimate of markup to cover overhead and profit.
- (3) Use quarter value of shipments f.o.b. (freight on board) from the plant (including the value of interplant transfers within a company, in addition to direct costs of production, but excluding resales and miscellaneous receipts) plus any additions or subtractions to the finished stock of inventories present before the current quarter (excluding materials and supplies). [Value of production = value of shipments + value of ending inventory – value of beginning inventory].

SPECIAL NOTE:

Do **not** include manufacturing contracted to others. If you contract out all of your manufacturing, please state this in the "Remarks" section, complete item 6, and return the form.

Job shops and custom orders: For actual production, report value of work done during the current quarter.

Publishing/printing plants: For actual production, report your printing sales only (NOT advertising sales) for the location named in the address box of

the form. Do not include any printing that is contracted out. **If you do not perform any printing activities, please indicate so in the remarks section on the back of the form.**

Item 2b – FULL PRODUCTION CAPABILITY

Read the definition and assumptions regarding full production capability. Estimate your market value of products that would have been produced if the plant was operating at full capacity during the quarter. Use one of the two methods suggested below or your own computations.

Full Production Capability – The maximum level of production that this establishment could reasonably expect to attain under **normal** and **realistic** operating conditions fully utilizing the machinery and equipment in place. In estimating market value at full production capability, consider the following:

- Assume **only** the machinery and equipment in place and ready to operate will be utilized. Do not include facilities or equipment that would require extensive reconditioning before they can be made operable.
- Assume **normal** downtime, maintenance, repair, and cleanup. If full production requires additional shifts or hours of operation, then appropriate downtime should be considered in the estimate.
- Assume number of shifts, hours of plant operations, and overtime pay that can be sustained under **normal** conditions and a **realistic** work schedule.
- Assume labor, materials, utilities, etc. are fully available.
- Assume a product mix that was **typical** or representative of your production during the quarter. If your plant is subject to short-run variation assume the same product mix as the actual production.
- Do not assume increased use of productive facilities outside the plant for services (such as contracting out subassembly work) in excess of the proportion that would be normal during the quarter.

SPECIAL NOTE:

Job shops and custom orders: For full production, estimate the market value of work that you could have accomplished under sustainable operating conditions and if you had sufficient orders.

Publishing/printing plants: For full production, report printing sales for this location as if it were running at peak circulation.

Two Methods to estimate market value of production when operating at full production capability:

- (1) If you have a reliable or accurate estimate of your plant's sustainable capacity utilization rate: **Divide** your market value of production at **actual** operations (item 2a) by your current **rate of capacity** utilization (in decimal form). For example, if your value of actual operations during the quarter is \$1,200,000 and your plant is currently at 80% capacity, divide \$1,200,000 by 0.80 for a full production capability of \$1,500,000.

Item 2b – FULL PRODUCTION CAPABILITY – Continued

$$\begin{array}{r} \text{Actual Value of} \\ \text{Production} \end{array} / \begin{array}{r} \text{Capacity} \\ \text{Utilization} \\ \text{Rate} \end{array} = \begin{array}{r} \text{Market value of} \\ \text{production at} \\ \text{Full Capacity} \end{array}$$

Your plant's capacity utilization rate should be based on a capacity output measure that your plant could have sustained under **normal**, not emergency, conditions.

- (2) For each product, estimate the number of items that could have been produced if operating at full production, as defined by the assumptions given. Multiply the number of items produced by its sales price (or market value). For example, if you can produce 25,000 items in the quarter, under full production criteria, and the sales price (market value) for each item is \$4.50, then multiply 25,000 times \$4.50 for a full production capability of \$112,500.

$$\begin{array}{r} \text{Number of} \\ \text{items} \\ \text{produced} \end{array} \times \begin{array}{r} \text{Sales price} \\ \text{(Market} \\ \text{Value)} \end{array} = \begin{array}{r} \text{Market value of} \\ \text{production at} \\ \text{Full Capacity} \end{array}$$

If producing **more than one product**, sum the market values of production at full production estimated for each product (assuming the same product mix) for a **total** value of full production for the plant.

Enter your estimate for value of full production in item 2b.

Item 2c – CAPACITY UTILIZATION

- (1) Divide your estimate for actual production (Item 2a) by full production (Item 2b) capability. Multiply this number by 100. Enter this percentage in the box.
- (2) **Is this a reasonable estimate of your utilization rate for this quarter?** Mark (X) yes or no. If no, please review your full production capability estimate. If yes, continue with the next item.

Item 3 – ACTUAL AND FULL PRODUCTION COMPARISONS

Item 3a – FULL PRODUCTION CAPABILITY: CURRENT QUARTER VS. PREVIOUS QUARTER

If the value of full production for the current quarter differs from the previous quarter, mark (X) the primary reasons for the change.

Item 3b – ACTUAL OPERATIONS VS. FULL PRODUCTION CAPABILITY

Compare the actual value of production to the estimated value of full production in the quarter. Mark (X) reasons why your actual operations were less than the estimated value of full production capability, if appropriate.

Item 4 – WORK PATTERNS FOR THE QUARTER

Actual Operations – Report work patterns for the following characteristics covering each *production shift* of actual operations during the quarter. Report based on the average number of shifts per day

during the quarter. Do not consider maintenance, administrative, or support operations as additional shifts. Do not consider overtime hours as additional shifts. If the plant did not operate a second or third shift, do not complete the corresponding columns. Complete ALL items for each shift reported.

- a. Days per week-in-operation** – For each shift, report the typical number of days per week-in-operation for the quarter. If your plant has departments or assembly lines that operate varied number of days *within a shift*, report days per week-in-operation for the department operating the greatest number of days per week for that shift. For example, if one production line operates 7 days per week during the first shift and a second production line operates 5 days per week during the first shift, report that the first shift operates 7 days per week.
- b. Plant hours per week-in-operation** – For each shift, report the typical number of **hours the plant was in operation** during a single week. If your plant has departments or assembly lines that operate at varied periods of time *within a shift*, report hours per week-in-operation for the production department operating the greatest number of hours per week for that shift. **Do not report the number of person hours worked (see below).**

- c. Weeks-in-operation in the quarter** – For each shift, report the total number of weeks the plant operated during the quarter. NOTE: The quarter covers 13 weeks.

- d. Number of production workers (including temporary workers)** – For each shift, report the number of production workers at this establishment, including both permanent (payroll) and temporary employees who were paid during the second week of the second month of the quarter. Include all persons on paid sick leave, paid holidays, paid vacation during this pay period.

NOTE: **Include** workers (up through the line-supervisor level) engaged in fabricating, processing, assembling, inspecting, receiving, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial, guard services, product development, auxiliary production for plant's own use (e.g., power plant), record keeping, and other closely associated services. Include truck drivers delivering ready-mixed concrete.

Exclude nonproduction personnel, including those engaged in supervision above line-supervisor level, sales, sales delivery (truck drivers and helpers), advertising, credit, collection, installation and servicing of own product, clerical and routine office functions, executive, purchasing, finance, legal, personnel (including cafeteria, etc.), professional and technical.

Item 5 – NATIONAL EMERGENCY PRODUCTION

Read the definition and assumptions regarding national emergency production. Estimate your value of production under national emergency conditions for the quarter. Use your own computations or methods similar to those described for estimating full production capability.

SPECIAL NOTE: Your value of production at national emergency levels should be **greater than or equal** to your value of full production capability. If it is less than your full production capability, please review your computations.

Item 5a – National Emergency Production – The maximum level of production that this plant could expect to attain and sustain for one year or more under national emergency conditions.

National emergency conditions are situations, such as a military mobilization or natural disaster, which are likely to create widespread excess demand requiring additional work shifts.

For example, military mobilization may require increased production of food, clothing, building supplies, and conversion of plants to produce alternative products in addition to traditional defense hardware. Devastation from natural disasters, such as hurricanes, floods, earthquakes, or fire, may require increased production of similar goods as well as increased production to compensate for plants damaged or destroyed.

In estimating national emergency production, consider the following:

- Assume full use of **all** machinery and equipment in place (including machinery and equipment that would require extensive reconditioning before they could be made operable).
- Assume minimal downtime and **multi-work shift** operations.
- Assume plant production as close to 168 hours per week as possible, including extra shifts (e.g., operating 7 days per week, 24 hours per day less minimal downtime).
- Assume overtime pay, availability of labor, materials, utilities, etc., are **fully available** to you and your suppliers.
- Assume you can sell all your output.
- Assume your product mix can change.
- Assume increased use of productive facilities outside the plant for services (such as contracting out subassembly work) in excess of the proportion that would be normal during the quarter.

SPECIAL NOTE

Jobs shops and custom orders: For national emergency production, estimate the market value of work that could have been done if you received additional orders assuming maximum number of employees working multiple shifts that the facility can accommodate.

Publishing/printing plants: For national emergency production, report value of printing if operating machinery as close to 168 hours/week as possible.

Item 5b – Select a time period that would have been reasonable to increase output to emergency production level. Include time to hire and train labor force.

If you have any questions concerning the definitions or instructions, please contact the Special Studies Branch of the Manufacturing and Construction Division on 1-800-201-4647 option 5 or visit our help site at www.census.gov/econhelp/pcu.