

690.091.87  
H6B  
1952  
C.3

QUESTIONS and ANSWERS on

**CMP\*** as it affects

**HOME BUILDING**

\*CONTROLLED MATERIALS PLAN

This booklet sets forth the amounts and types of controlled materials that may be used in residential construction and other restrictions of the CMP as it affects home-building, as of the date of publication. These amounts and types may be modified from time to time, by amendments to the CMP regulations, as may be required by changing conditions of materials supply. For example, it has been announced that the permitted use of steel and aluminum will probably be increased beginning with the third quarter of 1952. Changes not yet made effective by regulation, however, are not reflected in this booklet, and users of the booklet should look to the National Production Authority for notice of any future modification of present restrictions.

U.S. HOUSING AND HOME FINANCE AGENCY

Office of the Administrator

• May 10, 1952

# Questions and Answers on CMP as it affects Homebuilding

**T**HE National Production Administration has issued two regulations affecting residential construction, effective March 6, 1952. They supersede three former NPA regulations—CMP Reg. 6, Direction 1 to CMP Reg. 6, and M-4A. The new regulations are: NPA Order M-100 and Revised CMP Reg. 6.

## GENERAL

1. Q. What does NPA Order M-100 do?  
A. NPA Order M-100 sets forth the limitations on the construction of residential structures under the controlled materials plan. In so doing, it:
  1. Requires authorization to construct multiunit residential structures and temporary one- through four-family structures. Authorization is also required for other one- through four-family housing when the required quantity of controlled materials exceeds that specified in M-100 for such construction.
  2. Prohibits the use of controlled materials for certain purposes—such as copper for gutters and downspouts fabricated on the construction site.
  3. Limits the quantity and types of controlled materials to be used in one- through four-family residential structures.
  4. Provides a self-authorization procedure for obtaining controlled materials to be used in one- through four-family structures other than temporary or seasonal structures.
2. Q. What does Revised CMP Reg. 6 do?  
A. Revised CMP Reg. 6, as it applies to residential construction, describes the procedure for obtaining an authorized construction schedule and an allotment of controlled materials through the filing of a CMP-4C application when this is required by M-100.
3. Q. What is the principal difference between the present rules and the former rules?  
A. The new order limits the total quantity and type of controlled materials that may be used in the construction of a house, regardless of how or when obtained. The former limitations applied only to controlled materials which were delivered after September 30, 1951, and materials obtained prior to that date could be used without restriction as to quantity or type.

## Note:

This Q. and A. has been prepared and issued by the Housing and Home Finance Agency with a view to aiding the home-building industry and home owners in their residential construction activities under the Controlled Materials Plan.

4. Q. Can a builder get authorization to use greater quantities or different types of steel, copper and aluminum than are permitted in the order?  
A. In appropriate cases, applications for adjustment or exception to these restrictions may be granted. Such applications should fully set forth the relevant information as described in Q. 35.
5. Q. What is a residential structure?  
A. A residential structure is defined in M-100 as any building in which at least 50 percent of the floor space (excluding floor space devoted to stairways, halls and other common space) is used or designed for dwelling purposes for other than transient occupancy. Hotels, motels, or tourist camps, primarily used for transient occupancy, are not considered as housing under M-100 but are considered as commercial construction.
6. Q. Does the order separate housing into various classes?  
A. Yes, under M-100 housing is divided into four classes—multiunit, one- through four-family, temporary, and seasonal structures.
7. Q. For what kind of residential construction must authorization be obtained?  
A. Authorization must be obtained for:  
1. Multiunit residential structures or projects.  
2. One- through four-family residential structures that require greater quantities or different types of controlled materials than allowed under Schedule I or II of the order (see attached).  
3. Temporary one- through four-family residential structures.
8. Q. When may the self-authorization procedure be used?  
A. The builder may use the self-authorization procedure to assist him in obtaining controlled materials for the construction of one- through four-family residential structures, other than temporary or seasonal housing, within the quantities and types of controlled materials set forth in Schedule I or II of Order M-100 for each type of construction.

### MULTIUNIT RESIDENTIAL STRUCTURES

9. Q. What is meant by a multiunit residential structure?  
A. A multiunit structure or project means any residential structure or project, such as an elevator-type apartment house, a dormitory, or a walk-up housing development, which contains more than four dwelling units in any single structure. However, separate buildings, even though they contain four or less

dwelling units, which have common utility or heating systems constitute a multiunit residential project within the meaning of the order if there is a total of more than four dwelling units in the buildings comprising the project. "Row" houses (houses connected by common walls, but with individual heating utility units and connections) are not considered multiunit structures.

10. Q. What of separate buildings on the site of a multiunit project?  
A. Separate buildings or construction on the residential site where used to service a multiunit structure or project, such as a heating or incinerator plant, or a garage for use of tenants only, are part of the multiunit structure or project for which an allotment of controlled materials needed for the entire structure or project must be requested.
11. Q. What of electricity lines, or oil, gas, or water pipes on the construction site needed to service the structure or project?  
A. They also are regarded as part of the structure or project for which an allotment of controlled materials needed for the entire structure or project must be requested *provided* such utility lines or pipes are or will be the property of the owner of the multiunit structure or project and not of the utility company.
12. Q. Suppose I want to build or sponsor a multiunit structure. How do I proceed under the order?  
A. If the proposed structure or project is private housing, you will generally obtain a CMP-4C application from the closest field office of the Federal Housing Administration which will assist you, if you wish, in completing the 4C application to show the amounts of controlled materials you will need for the structure or project. If the structure or project is not within the jurisdiction of the Housing and Home Finance Agency, your communication should be directed to the claimant agency having jurisdiction over the type of housing involved. (See Question No. 63 of this Q. and A.)  
The approved application will (a) authorize you to proceed with the construction, and (b) allot specific amounts of controlled materials that may be used in the structure.  
If the proposed structure or project is housing to be built by a public agency, the application will be received and processed by the field office of the Public Housing Administration.
13. Q. Are there predetermined amounts of controlled materials for multiunit structures or projects?  
A. No. Each application is considered individually.



4. Q. Can a builder get authorization to use greater quantities or different types of steel, copper and aluminum than are permitted in the order?

A. In appropriate cases, applications for adjustment or exception to these restrictions may be granted. Such applications should fully set forth the relevant information as described in Q. 35.

5. Q. What is a residential structure?

A. A residential structure is defined in M-100 as any building in which at least 50 percent of the floor space (excluding floor space devoted to stairways, halls and other common space) is used or designed for dwelling purposes for other than transient occupancy. Hotels, motels, or tourist camps, primarily used for transient occupancy, are not considered as housing under M-100 but are considered as commercial construction.

6. Q. Does the order separate housing into various classes?

A. Yes, under M-100 housing is divided into four classes—multiunit, one- through four-family, temporary, and seasonal structures.

7. Q. For what kind of residential construction must authorization be obtained?

A. Authorization must be obtained for:

1. Multiunit residential structures or projects.

2. One- through four-family residential structures that require greater quantities or different types of controlled materials than allowed under Schedule I or II of the order (see attached).

3. Temporary one- through four-family residential structures.

8. Q. When may the self-authorization procedure be used?

A. The builder may use the self-authorization procedure to assist him in obtaining controlled materials for the construction of one- through four-family residential structures, other than temporary or seasonal housing, within the quantities and types of controlled materials set forth in Schedule I or II of Order M-100 for each type of construction.

## MULTIUNIT RESIDENTIAL STRUCTURES

9. Q. What is meant by a multiunit residential structure?

A. A multiunit structure or project means any residential structure or project, such as an elevator-type apartment house, a dormitory, or a walk-up housing development, which contains more than four dwelling units in any single structure. However, separate buildings, even though they contain four or less

dwelling units, which have common utility or heating systems constitute a multiunit residential project within the meaning of the order if there is a total of more than four dwelling units in the buildings comprising the project. "Row" houses (houses connected by common walls, but with individual heating utility units and connections) are not considered multiunit structures.

10. Q. What of separate buildings on the site of a multiunit project?

A. Separate buildings or construction on the residential site where used to service a multiunit structure or project, such as a heating or incinerator plant, or a garage for use of tenants only, are part of the multiunit structure or project for which an allotment of controlled materials needed for the entire structure or project must be requested.

11. Q. What of electricity lines, or oil, gas, or water pipes on the construction site needed to service the structure or project?

A. They also are regarded as part of the structure or project for which an allotment of controlled materials needed for the entire structure or project must be requested *provided* such utility lines or pipes are or will be the property of the owner of the multiunit structure or project and not of the utility company.

12. Q. Suppose I want to build or sponsor a multiunit structure. How do I proceed under the order?

A. If the proposed structure or project is private housing, you will generally obtain a CMP-4C application from the closest field office of the Federal Housing Administration which will assist you, if you wish, in completing the 4C application to show the amounts of controlled materials you will need for the structure or project. If the structure or project is not within the jurisdiction of the Housing and Home Finance Agency, your communication should be directed to the claimant agency having jurisdiction over the type of housing involved. (See Question No. 63 of this Q. and A.)

The approved application will (a) authorize you to proceed with the construction, and (b) allot specific amounts of controlled materials that may be used in the structure.

If the proposed structure or project is housing to be built by a public agency, the application will be received and processed by the field office of the Public Housing Administration.

13. Q. Are there predetermined amounts of controlled materials for multiunit structures or projects?

A. No. Each application is considered individually.

14. Q. Is the rule the same with respect to multiunit housing started prior to March 6, 1952, the effective date of M-100?  
A. No. The limitation on the right to construct a residential structure if construction was started prior to March 6, 1952 is the following: You may not construct without receiving an authorization if you require or did require delivery after September 30, 1951, of any controlled materials.

### ONE- THROUGH FOUR-FAMILY STRUCTURES

15. Q. What is meant by one- through four-family structures?  
A. A one- through four-family structure means any structure which contains at least one but not more than four dwelling units. Separate buildings or construction on the residential site where used to service one- through four-family structures, such as private garages, tool sheds and green houses, and electric utility, water, gas, or oil lines or pipes which do or will belong to the owner, are considered part of the structure and are not entitled to additional quantities of controlled materials without specific authorization.
16. Q. Is authorization required to commence construction of one- through four-family residential structures?  
A. Such construction (other than *temporary* housing) may proceed without authorization provided that the controlled materials required to complete the structure will not be in excess of the quantity nor of different types than those allowed under Schedules I and II of Order M-100.
17. Q. Suppose I wish to build a one- through four-family structure. How do I proceed under the order?  
A. You may proceed without authorization provided the house you plan to build is not *temporary* housing and provided further you will use only the types and not in excess of the quantities of controlled materials specified in the order.
18. Q. Can I get assistance in obtaining the quantity and types of controlled materials I am permitted to use in the house I plan to build?  
A. Yes, by making use of the self-authorization procedure provided in M-100. Self-authorization may be used for all one- through four-family housing except *temporary* and *seasonal* housing.
19. Q. How does it work?  
A. It is very simple. The owner merely gives to a supplier a purchase order for the controlled materials he needs (provided the quantities and types do not exceed those permitted under Schedule I). The owner writes on the purchase order the

symbol "U7" and the words "Certified under NPA Order M-100," and signs it. This constitutes an authorized controlled materials order for the purposes of all NPA regulations.

20. Q. Is assistance also provided for obtaining materials (other than controlled materials) needed for the house?  
A. Yes. The owner is authorized to use the symbol "DO-U7" on his purchase orders of building materials other than controlled materials needed for the construction. He follows the same procedure as under the self-authorization procedure for controlled materials.
21. Q. Who is the "owner" who may obtain materials under the self-authorization procedure?  
A. The owner is the person who owns the residential structure or project being constructed or who will own it upon completion. This may be a person for whom a house is being built, or in the case of housing being built for sale it may be the builder or sponsor who owns the property until such sale.
22. Q. May the builder—that is, the person actually constructing the house—self-authorize purchase orders for such construction?  
A. Yes, if he is the owner or if he is authorized by the owner to purchase materials for the house.
23. Q. How can a builder be authorized to act for the owner?  
A. By a simple "To Whom It May Concern" written statement permitting the builder to purchase controlled materials for the owner.
24. Q. May the owner use the DO rating to assist him in purchasing appliances such as cooking ranges or refrigerators to be used in the homes?  
A. No, the DO rating may not be used for such purchases.
25. Q. May the DO rating be used to assist the builder in obtaining construction machinery and equipment he may need or desire to build the house?  
A. No, the DO rating cannot be applied to such purchases.
26. Q. Is there any limit on the size or value of a house that may be built?  
A. No. All previous limitations as to the dollar value or size of the house were discontinued in the summer of 1951 when housing was put under the Controlled Materials Plan. Nor is there any limit on the number of bathrooms that a house may have. The only limitation is on the types and quantities of controlled materials that may be used in a house as authorized in Order M-100 or allowed under approved exceptions.



## TEMPORARY AND SEASONAL HOUSING

27. Q. Reference has been made to *temporary* housing. First, what is temporary housing?  
A. Temporary housing is defined as a residential structure which is to be used for dwelling purposes for a limited period, such as housing for use of construction workers for the duration of the construction project.
28. Q. Is a trailer regarded as *temporary* housing?  
A. A trailer used for dwelling purposes constitutes temporary housing. However, since M-100 applies only to residential construction, it does not apply to a trailer until and unless the trailer is constructed or installed on a site for dwelling purposes. The order does not apply to the manufacture or purchase of a trailer or its use for touring purposes.
29. Q. How does the order apply to temporary housing?  
A. It requires a person who wishes to build such housing to obtain authorization before doing so. He must file a CMP-4C application with the appropriate claimant agency. The application, if granted, will state the types and quantities of controlled materials that may be used.
30. Q. Is the applicant then permitted to use the self-authorization procedure to obtain the controlled materials he needs?  
A. No, he may not. His approved 4C application will include an allotment of controlled material which may be purchased for use in the proposed temporary housing.
31. Q. Reference has also been made to *seasonal* housing. First, what is seasonal housing?  
A. *Seasonal* housing is defined as housing which is to be used or is designed for seasonal or other than year-round occupancy.
32. Q. How does the order apply to seasonal housing?  
A. Such housing may be built without authorization within the quantity limitations of the order, but the person wishing to build seasonal housing may not use the self-authorization system to aid him in obtaining the controlled materials he may need for the construction.
33. Q. How will he get the materials he needs?  
A. He is free to use materials in inventory of the type and up to the quantity specified in Order M-100 or purchase them on the open market, to the extent that open market purchases are permitted by NPA orders and regulations.

## INVENTORY

34. Q. Do the limitations in M-100 apply to controlled materials in inventory?  
A. Yes, both in the case of multifamily and one- through four-family structures because the emphasis in this order is not on what quantity of controlled materials may be *delivered* after a certain date but rather on the total quantity of controlled materials that may be *used* in the construction of a house. This is how the inventory restrictions apply:  
1. *In the case of new construction*—that is, housing started after March 5, 1952, controlled materials in inventory are treated exactly the same as controlled materials not yet delivered—or not yet ordered—regardless of how long they have been held in inventory. That is, the order permits the *use* of controlled materials that are not in excess of certain quantities. *When* those materials came into the possession of the owner or the builder has no bearing.  
2. *In the case of construction commenced* prior to March 6, 1952, controlled materials properly in inventory prior to October 1, 1951 (when the Controlled Materials Plan was applied to housing construction) may be used in any quantity and without regard to type. The only limitation of Order M-100 is that there may be no construction without authorization if the owner will require or has required delivery of controlled materials after September 30, 1951, in quantities exceeding those specified in Schedule II of that order.

## PROVISION FOR EXCEPTION OR ADJUSTMENT

35. Q. What if the proposed construction requires controlled materials of a different type or quantity than is permitted by the order for one- through four-family housing?  
A. Then he must file a request for an adjustment or exception and a Form CMP-4C with the appropriate claimant agency before starting construction. The request should be filed in triplicate and should be accompanied by a detailed statement of all relevant information in support of the request. If he wishes an exception from the prohibition against the use of copper or aluminum for certain purposes, he must also file Form NPAF-24A. If his request for an exception involves the procurement of any greater quantity of materials than can be obtained under self-authorization, he must file a Form CMP-4C for all the controlled materials needed for such construction.

36. Q. Specifically, what is meant by the "relevant" information the applicant is expected to furnish in the detailed statement supporting his request?
- A. Such information as the total floor area of the construction (excluding garages, open porches, unfinished attics, basements, balconies, and terraces); the total quantities of controlled materials required for the house, with a request for an allotment of the total quantity of each kind of controlled material needed to complete the structure; plans and specifications, where appropriate; and a complete explanation of why additional quantities of controlled materials are necessary.

37. Q. If his request for an adjustment or exception is granted or is approved, how does he proceed to get the additional controlled materials he needs?
- A. With the approved application he will receive an authorized construction schedule and an allotment of controlled materials. He will use an authorized controlled materials order with the proper allotment symbol in purchasing the quantity of controlled materials allotted to him.

### CONTROLLED MATERIALS

38. Q. What is meant by the term "controlled material"?
- A. Controlled material means domestic and imported steel, copper, and aluminum, in certain forms and shapes. (The forms and shapes are indicated in table III of Revised CMP Reg. 6.) Such material is "controlled" because it forms the basis of the NPA's Controlled Materials Plan.
39. Q. How does this apply to residential construction?
- A. The new regulations—Revised CMP Reg. 6 and Order M-100—restrict the purchase or use in housing construction of controlled materials. They also restrict the purchase and use of controlled materials incorporated in certain products containing controlled materials which are known as "Class A Products."
- However, materials incorporated in certain products known as "Class B Products" and listed in the "Official CMP Class B Product List" are not charged against the quantities of controlled materials permitted to be used in residential construction.
40. Q. What are some of the Class A products and controlled materials that are used in residential construction?
- A. Some of the Class A products and controlled materials commonly used in residential construction are: *Steel*—nails, reinforcing bars and mesh, sheet metal for several uses including

flashing and warm air ducts made to customer's specifications, and steel pipe for several uses; *copper*—electric wire, tubing and fittings for several uses, flashing, termite shields; *aluminum*—aluminum wire to be used for the conduction of electricity in place of copper wire. For a more representative list of the major Class A products for residential construction, see table I at the conclusion of the Q. and A.

41. Q. And it is the controlled materials in the Class A products which must be included in the quantities of controlled materials permitted for use in residential construction?
- A. Yes.
42. Q. What items in the Class B Products List are commonly used in residential construction?
- A. The Class B list includes such finished products as builders' hardware, metal plumbing fixtures and fittings, metal weather-strip, reinforced concrete products, furnaces and hot water heaters, stoves and space heaters, metal doors and sash, lighting fixtures, insect screening and hardware cloth, and household appliances such as washing machines and refrigerators. All these and any other item in the Class B list may be used without charging the materials in them against the quantities of controlled materials allowed to be used in residential construction.
43. Q. Is that a complete list of Class B products?
- A. By no means. Even a condensed list of the homebuilding and household items in the Class B Products List is too lengthy to be included in this document. However, copies of such a condensed list prepared by the HHFA's Research Division may be obtained from the HHFA Division of Information at 805 Normandy Building, 1626 K Street NW., Washington 25, D. C. The complete Class B Products List is available at all Department of Commerce offices.
44. Q. In addition to limiting the quantity of controlled material that may be used, doesn't the order also prohibit the use of controlled material for certain purposes?
- A. Yes. It prohibits the use of *aluminum* (excluding aluminum in Class B products), except for aluminum electrical wiring in place of copper wiring, unless upon specific allotment or authorization. The order also prohibits the use of *copper* (excluding copper in Class B products), in a number of construction items when such items are fabricated on the site of construction, including the following: cornices, downspouts, and accessories, fascias, iron pipe size waste nipples, linoleum stripping, metal siding, moldings for joining cabinet sinks, roofing, and for decorative or ornamental purposes.



## AMOUNTS OF CONTROLLED MATERIALS

45. Q. What are the amounts of controlled materials that may be used in multiunit and temporary residential construction?  
A. There are no specified amounts. You must file an application and get an allotment.

46. Q. What amounts of controlled materials may be used in one-through four-family housing (other than temporary housing) started after March 5, 1952?  
A. Since the amounts vary, depending on whether steel or copper is used for water pipe and other contingencies, it is necessary to give several combinations of figures. The following table gives the maximum amounts per dwelling unit.

Type of construction	Quantity
1. If steel pipe is used for the water system	2,300 pounds of steel. 35 pounds of copper.
2. If copper water pipe is used	1,950 pounds of steel. 135 pounds of copper.
3. If steel water pipe is used inside the building and the local building code requires type B or K copper tubing for underground water service connections.	2,135 pounds of steel. 80 pounds of copper.
4. If copper water pipe is used inside the building and the local building code requires type B or K copper tubing for underground water service connections.	1,950 pounds of steel. 145 pounds of copper.
5. If the residence is heating by electricity	An additional 15 pounds of copper to any of the above combinations.

In each case, the allowable quantity of steel refers to *new domestic* carbon steel other than structural shapes. No *new domestic* structural steel, alloy and stainless steel may be used.

47. Q. In the preceding paragraph, why is reference made to *new* and *domestic* steel?

A. To differentiate it from *foreign* and *used* which may be used in otherwise authorized residential construction in any form and in any amount and without being charged against the quantity of steel allotted or permitted under the order for such construction. However, when using such foreign or used steel, the person may not use a greater quantity of copper or aluminum than has been specifically allotted or authorized under the order.

48. Q. Does Schedule I make provision for the use of aluminum?  
A. Yes, it provides that aluminum may be used for the conduction of electricity in place of copper wire on the basis of 1

pound for each 2 pounds of copper. In addition, M-100 also provides that aluminum may be used for other purposes in residential construction only upon specific authorization and allotment.

49. Q. What amounts of controlled materials are permitted for one- through four-family residential structures started prior to March 6, 1952?

A. The limitation with respect to this type of construction is a limitation of the right to use controlled materials delivered after September 30, 1951, in quantities exceeding the following:

1. Up to 2,300 pounds of steel and 35 pounds of copper per dwelling unit if steel water pipe is used.
2. Up to 1,950 pounds of steel and 160 pounds of copper if copper water pipe is used.

Aluminum may not be used except for conduction of electricity in place of copper on the basis of 1 pound of aluminum for each 2 pounds of copper. New domestic structural, stainless and alloy steel which has been delivered after September 30, 1951, may not be used without authorization. Foreign and used steel may be used without authorization provided that the owner will not require allotments of copper or aluminum.

50. Q. Where can a builder obtain the weights of controlled materials he will use in a structure?

A. Material weights can be obtained from manufacturers' and suppliers' catalogues. Representative material weights which are sufficiently accurate are given in table II to this Q. and A.

## ALTERATIONS

51. Q. Does M-100 apply to alterations and repairs?

A. It applies to alterations, additions and extensions. It does not apply to repairs.

52. Q. What constitutes an alteration within the meaning of the order?

A. Alteration is defined in the order as meaning the renovation, remodeling, or replacement of, or structural change in, a residential structure; or improving a residential structure by replacing parts or materials which are still in sound working condition with parts or materials of a different kind, quality or design. The term "alteration" also means addition or extension of existing residential structures.



53. Q. How does that differ from repair?  
A. The order states that the word "alteration" does not include maintenance and repair. It defines "maintenance" as meaning the minimum upkeep necessary to continue any residential structure or part thereof in sound habitable condition. "Repair" means restoring a residential structure or part thereof to sound habitable condition when it has been made unsafe or unfit for residential use by wear and tear.

54. Q. How are maintenance and repair covered in NPA regulations?

A. There are no restrictions on the amount of controlled materials that may be used for the maintenance and repair of residential structures, and assistance in procuring such materials is granted in two separate regulations, CMP Regulation Nos. 5 and 7. Owners of rental housing are given assistance in obtaining controlled materials for such work by CMP Reg. 5. Home owners who employ repairmen to do repairs are not given such assistance, since repairmen can, if they wish, obtain controlled materials for such jobs under CMP Reg. 7. In addition, home owners are free to purchase from retail stores controlled materials for use in maintenance and repair work.

55. Q. Returning then to alterations—how does this order apply?

A. Generally the same as to new construction, except as to the quantity of controlled material that may be used in the alteration.

In the case of alterations to multi-unit and temporary construction, a CMP-4C application must be filed with the appropriate claimant agency the same as for new construction. That agency will determine the amount of controlled materials to be allotted for the proposed alteration.

In the case of one-through four-family construction, no authorization is required (except for *temporary* housing) to make the alteration provided not more than the quantity of controlled materials allowed for alterations is used.

56. Q. How does that quantity differ from the quantity permitted to be used in new one-through four-family construction?

A. As in the case of new construction, there is one schedule for alterations started after March 5, 1952, and another for alterations started before that date. In Schedule I, the amount permitted for use in alterations is generally not more than 50 percent of the amounts of controlled materials allowed for use in new construction. However, additional amounts of controlled materials are allowed to be used in alterations, consisting of initial installations of electrical wiring or plumbing.

57. Q. What are these additional amounts?

A. They are as follows:

1. Where electrical wiring is installed in a house for the first time, an additional 17½ pounds of copper is permitted per dwelling unit.

2. Where plumbing is installed for the first time and steel pipe is used, an additional 250 pounds of steel is permitted per dwelling unit.

3. Where plumbing is installed for the first time and copper pipe is used, additional quantities of both steel and copper are allowed—125 more pounds of steel and 50 more pounds of copper per dwelling unit.

In all three cases the amounts of controlled materials just enumerated are in addition to the allowance for alterations of up to 50 percent of the amount of controlled materials allowed for new construction. The rule with respect to Schedule II is that for alterations the owner may not use controlled materials delivered after September 30, 1951, in quantities exceeding the amounts specified in Schedule II for that purpose.

58. Q. What is to prevent a person from building a new house under the terms of the present order and then soon or immediately thereafter altering or building an addition to it, thereby using additional quantities of controlled materials?

A. The order prohibits the alteration of any house completed after March 5, 1952, for a period of 1 year after the date of completion.

59. Q. Are additional quantities of controlled materials permitted for the remodeling of houses which results in the creation of additional dwelling units?

A. Yes, within the 1-year limitation on alterations. Although such remodeling is an alteration under the order, the same quantity of material is allowed for each additional dwelling unit created by the remodeling as for new construction.

60. Q. May the self-authorization procedure be used for alterations?

A. Yes, but only for the same types of constructions as in new construction.

## MISCELLANY

61. Q. Does M-100 apply to all residential construction?

A. It applies to all residential construction with two exceptions:

1. It does not apply to housing that is built in connection

with the production, processing, refining and distribution of petroleum and gas.

2. It does not apply to military housing and all housing constructed under the Maybank-Wherry Act, whether on or off military reservations and installations.

Both of these exempted classes of housing come under the provisions of other NPA regulations.

**62.** Q. Does the order provide for adjustments or exceptions from the limitations imposed by it?

A. Yes, any person affected by any provision of the order may file a request for an exception or adjustment on the ground of exceptional hardship, or in the interest of national defense or public interest. He should also file a CMP-4C application for an allotment of the controlled materials he may require. It should be filed with the claimant agency having jurisdiction over the particular category of residential construction involved in the request. Such requests generally may be made by letter. However, any request for an exception from the prohibitions against the use of copper and aluminum for certain purposes must be made by filing NPA Form-24A. In addition, no exception or adjustment will be granted in the case of hardship stemming from the use of foreign or used steel.

**63.** Q. What claimant agency has jurisdiction over what category of construction, and what is its address?

A. The following table answers the question:

Category of construction	Agency	Address where communications shall be filed
Farmstead housing	Department of Agriculture.	County Production and Marketing Administration Committee, Department of Agriculture, for the county in which the project is located.
Federally owned housing on federally owned property under control of Atomic Energy Commission.	Atomic Energy Commission.	Appropriate operations office of the Atomic Energy Commission.
College and educational institutional housing.	Federal Security Agency.	Office of Education, Federal Security Agency, Washington 25, D. C.
Hospital and health facility housing.	.....do.....	Public Health Service, Federal Security Agency, Washington 25, D. C.
All other public and private housing.	Housing and Home Finance Agency.	Public multiunit structures: Public Housing Administration Field Offices. Private multiunit structures: Federal Housing Administration Field Offices. 1- through 4-family structures: Defense Liaison Staff, Office of the Administrator, HHFA, Washington 25, D. C.

**64.** Q. Will additional technical information be made available to home builders?

A. The Division of Housing Research of the HHFA plans to publish supplementary bulletins which will present design ideas and engineering data to help the builder to operate within the CMP and to use his material more efficiently.

#### Schedule I of NPA Order M-100

Types and quantities of controlled materials which may be obtained under the self-authorization procedure and which are the only types and the maximum quantities which may be used in 1- through 4-family residential structures, the construction, alteration, addition, or extension of which is commenced after Mar. 5, 1952.

Type of construction, alteration, addition, or extension	carbon steel (excluding structural shapes)	Structural shapes, alloy and stainless steel	Copper and copper-base alloys	Aluminum
	Pounds	Pounds	Pounds	Pounds
Construction of residential structures using steel pipe water distribution system, per dwelling unit.	Not more than 2,300 pounds per dwelling unit.	None	Not more than 35 pounds per dwelling unit.	
Construction of residential structures using copper pipe water distribution system, per dwelling unit.	Not more than 1,950 pounds per dwelling unit.	do	Not more than 135 pounds per dwelling unit.	
Construction of residential structures using steel pipe for interior water-supply pipes where local building code requires type B or K copper tubing for underground water service connections, per dwelling unit.	Not more than 2,135 pounds per dwelling unit.	do	Not more than 80 pounds per dwelling unit.	
Construction of residential structures using copper pipe water distribution system where local building code requires type B or K copper tubing for underground water service connections, per dwelling unit.	Not more than 1,950 pounds per dwelling unit.	do	Not more than 145 pounds per dwelling unit.	
Construction of residential structures using electrical energy heating systems.	In addition to the amounts of controlled materials allowed above, not more than 15 pounds of copper per dwelling unit.			
Alteration, addition, or extension of existing residential structures per dwelling unit.	Not more than 50 percent of the amounts of controlled materials allowed above for the appropriate type of construction, per dwelling unit.			
Alteration by initial installation of electrical wiring.	In addition to the amounts of controlled materials allowed for alterations generally, not more than 17 1/2 pounds of copper per dwelling unit.			
Alteration by initial installation of plumbing with steel pipe water distribution system.	In addition to the amounts of controlled materials allowed for alterations generally, not more than 250 pounds of steel per dwelling unit.			
Alteration by initial installation of plumbing with copper pipe water distribution system.	In addition to the amounts of controlled materials allowed for alterations generally, not more than 126 pounds of steel and 50 pounds of copper per dwelling unit.			

Aluminum may be used for conduction of electricity in place of copper on basis of 1 pound of aluminum for each 2 pounds of copper allowed in the preceding column. In such event the allowable quantity of copper is reduced accordingly.



## Schedule II of NPA Order M-100

Types and quantities of controlled materials which may be obtained under the self-authorization procedure for use in 1- through 4-family residential structures, the construction, alteration, addition, or extension of which was commenced prior to March 6, 1952.

Note: This table is not applicable to construction commenced after Mar. 5, 1952.

Type of construction, alteration, addition, or extension	Carbon steel (excluding structural shapes)	Structural shapes, alloy and stainless steel	Copper and copper-base alloys	Aluminum
	Pounds	Pounds	Pounds	Pounds
Construction of residential structures using steel pipe water distribution system, per dwelling unit.	Not more than 2,300 pounds per dwelling unit.	None	Not more than 35 pounds per dwelling unit.	Aluminum may be used for conduction of electricity in place of copper on basis of 1 pound of aluminum for each 2 pounds of copper allowed in the preceding column.
Construction of residential structures using copper pipe water distribution system, per dwelling unit.	Not more than 1,950 pounds per dwelling unit.	do	Not more than 160 pounds per dwelling unit.	In such event, the allowable quantity of copper is reduced accordingly.
Alteration, addition, or extension of existing residential structures, per dwelling unit.	Not more than 50 percent of the amounts of controlled materials allowed above for the appropriate type of construction, per dwelling unit.			
Alteration by initial installation of electrical wiring.	In addition to the amounts of controlled materials allowed for alterations generally, not more than 17½ pounds of copper per dwelling unit.			
Alteration by initial installation of plumbing with steel pipe water distribution system.	In addition to the amounts of controlled materials allowed for alterations generally, not more than 250 pounds of steel per dwelling unit.			
Alteration by initial installation of plumbing with copper pipe water distribution system.	In addition to the amounts of controlled materials allowed for alterations generally, not more than 12½ pounds of steel and 50 pounds of copper per dwelling unit.			

Table I.—Controlled Materials and Class A Products Commonly Used in Residential Construction

### STEEL

Nails: Bright steel wire, steel cut, galvanized, cement coated, and painted.

Spikes and brads: Steel wire, galvanized, and cement coated.

Staples: Bright and galvanized.

Reinforcing bars.

Reinforcing mesh or fabric.

Sheet metal for:

Flashing.

Termite shields.

Warm air heating ducts made to customer's specification.

Roofing: Corrugated, V-crimp or channel drain.

Steel pipe for the following general uses:

Hot water lines.

Hot water heating.

Cold water lines.

Drainage and venting.

Gas lines.

Railings.

Steam heating.

Stairs and staircases: Ornamental, iron and steel.

Fire escapes: Ornamental, iron and steel.

Grille work: Ornamental, iron and steel.

Railings: Ornamental, iron and steel.

## COPPER

For the following general uses:

Electric wire.

Tubing and fittings for water lines.

Flashing.

Termite shields.

Tubing and fittings for panel heating.

Tubing and fittings for drainage and venting.

Tubing for fuel tank lines.

## ALUMINUM

Aluminum wire may be used for the conduction of electricity in lieu of copper conductors on the basis of one pound of aluminum for each two pounds of copper allowed in Schedule I and II. In such event, the allowable quantity of copper is reduced accordingly.

Table II.—Unit Weights of Materials

The following tables of unit weights of materials are for the builder's convenience and are generally sufficiently accurate for calculating the amounts of materials to be used under the regulations of the Controlled Materials Plan. Further technical information on materials may be obtained from the Division of Housing Research, HHFA, Washington 25, D. C. For more particular circumstances or other materials, the builder may have to obtain more specific information from suppliers, subcontractors, or manufacturers.

## STEEL

[Nails—100 pounds per keg]

Reinforcing bars	Weight—pounds per linear foot		Reinforcing bars	Weight—pounds per linear foot	
	Square	Round		Square	Round
Size:			Size:		
¼	0.05	0.04	¾	1.91	1.50
½	.21	.17	1	2.60	2.04
¾	.48	.38	1½	3.40	2.67
1	.85	.67	2	5.31	4.17
1½	1.33	1.04			

## REINFORCING MESH OR FABRIC

Style	Weight—pounds per 100 square feet	Style	Weight—pounds per 100 square feet
2 x 2-16/16	13	6 x 6-6/6	42
2 x 2-14/14	21	6 x 6-8/8	30
4 x 4-4/4	85	6 x 6-10/10	21
4 x 4-12/12	19	6 x 12-6/6	32
6 x 6-4/4	58	6 x 12-4/4	44

# SHEET STEEL AND SHEET IRON

Size U. S. Standard Gage No.	Weight—pounds per square foot		Size U. S. Standard Gage No.	Weight—pounds per square foot	
	Black	Galvanized		Black	Galvanized
30	0.50	0.66	18	2.00	2.16
28	.63	.78	16	2.50	2.66
26	.75	.91	14	3.13	3.28
24	1.00	1.16	12	4.38	4.53
22	1.25	1.41	11	5.00	5.16
20	1.50	1.66	10	5.63	5.78

## CIRCULAR GALVANIZED IRON DUCTS

[Weight—pounds per linear foot]

Diameter (Inches)	U. S. Standard Gage No.				Diameter (Inches)	U. S. Standard Gage No.			
	30	28	26	24		30	28	26	24
6	1.08	1.27	1.48	1.89	10	1.76	2.07	2.42	3.09
7	1.25	1.48	1.73	2.20	11	1.94	2.29	2.68	3.41
8	1.43	1.68	1.97	2.51	12	2.11	2.50	2.91	3.71
9	1.60	1.89	2.20	2.81					

## WEIGHT, POUNDS PER LINEAR FOOT FOR GALVANIZED IRON RECTANGULAR DUCTS

[U. S. Standard Gage No. 26]

Size of duct (Inches)	Long side of duct (Inches)															
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20
3/4	1.21	1.38	1.54	1.71	1.88	2.04	2.21	2.38	2.54	2.71	2.88	3.04	3.21	3.38	3.54	3.88
6	1.69	1.83	2.00	2.17	2.33	2.50	2.67	2.84	3.00	3.17	3.33	3.50	3.67	3.83	4.00	4.33
7	1.83	2.00	2.17	2.33	2.50	2.67	2.84	3.00	3.17	3.33	3.50	3.67	3.83	4.00	4.17	4.50
8	2.00	2.17	2.33	2.50	2.67	2.84	3.00	3.17	3.33	3.50	3.67	3.83	4.00	4.17	4.33	4.67
9	2.17	2.33	2.50	2.67	2.84	3.00	3.17	3.33	3.50	3.67	3.83	4.00	4.17	4.33	4.50	4.83
10	2.33	2.50	2.67	2.84	3.00	3.17	3.33	3.50	3.67	3.83	4.00	4.17	4.33	4.50	4.67	5.00

To obtain the weight in pounds, per linear foot for galvanized iron rectangular ducts, other than U. S. Standard 26 gage, multiply the weight in the above table by the following factors:

Gage No.	Factor
30	0.725
28	.857
24	1.275

NOTE.—The National Board of Fire Underwriters' regulations permit the following for rectangular ducts:

Largest duct dimension (width):

Ducts enclosed:

Less than 14 inches

14 inches or more

Ducts exposed:

Less than 14 inches

14 inches or more

U. S. Standard gage No.

28

26

30

28

## PIPE

Steel and wrought iron (type A—standard weight.) The same unit weight may be used for black and galvanized pipe.

Size	Weight—pounds per linear foot	Size	Weight—pounds per linear foot
3/8	0.57	1 1/4	2.28
1/2	.85	1 3/4	2.73
3/4	1.13	2	3.68
1	1.68	2 1/4	5.82

## COPPER

### COPPER TUBING

Size	Type—weight (pounds per linear foot)			
	K	L	M	B (iron pipe size)
1/4	0.134	0.126	0.107	0.376
3/8	.269	.198	.144	.483
1/2	.344	.284	.203	.613
3/4	.418	.362	.263	( <sup>1</sup> )
1	.641	.454	.328	.780
1 1/4	.839	.653	.464	.989
1 3/4	1.04	.882	.681	1.26
2	1.36	1.14	.940	1.45
2 1/2	2.06	1.75	1.46	1.83

1 All thickness 0.065 inches.



## ELECTRIC WIRE

(Pounds per 1,000 feet of single conductor) <sup>1</sup>

Size (AWG)	Copper (weight <sup>2</sup> of cop- per in bare or insulated wire)	Aluminum <sup>3</sup> (weight <sup>2</sup> of alu- minum in bare or insulated wire)
14	12.5	
12	20	6.01
10	31.5	9.55
8	50	15.2
6	81	24.64
4	129	39.19
2	205	62.31
0		99.07

<sup>1</sup> For 2-conductor cable multiply these weights by 2, for 3-conductor multiply by 3.<sup>2</sup> Weights of sizes from 14 through 8 are based on solid conductors. Weights of sizes from 6 through 0 are based on stranded conductors.<sup>3</sup> According to the National Electric Code, the allowable current-carrying capacities for aluminum conductors shall be taken as 84 percent of those given for the respective sizes of copper conductor with the same kind of insulation. For the same service, the use of aluminum conductors requires one AWG size larger than copper conductors.