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NATIONAL HOUSING AGENCY
FEDERAL PUBLIC HOUSING AUTHORITY.
REGION II.

REGIONAL CONFERENCE ON MAINTENANCE AND OPERATIONS
COMMITTEE REPORTS



HOTEL PENNSYLVANIA, NEW YORK, N.Y.
JULY 13 to 16, 1943

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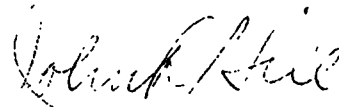
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This is your copy of the Committee Reports and discussions and issues raised at the Regional Conference on Maintenance and Operations, held at the Hotel Pennsylvania, New York, N. Y., July 13 to 16, 1943, for the Maintenance Superintendents of each Local Housing Authority operating within Region II.

Appreciation is hereby expressed for the interest and cooperation of the participants and conferees, and for the assistance given by all who have contributed to the preparation of this Report.



JOHN R. HILL
Housing Management
Training Adviser

REGIONAL CONFERENCE ON MAINTENANCE AND OPERATIONS

TABLE OF CONTENTS

<u>Committee Report</u>	<u>Page</u>
Grounds	1
Discussion	8
Structures.	11
Discussion	15
Central and Group Heating	19
Discussion	25
Tenant-Operated Heating	28
Discussion	31
Plumbing and Electrical	35
Discussion	39
Painting and Maintenance.	41
Discussion	44
General	47
Discussion	50

GROUNDS COMMITTEE REPORT

Committee:

Hamilton Vogdes, Chairman	Philadelphia Housing Authority
Frank J. Whalen, Co-chairman	Buffalo Municipal Housing Authority
Morton Jamieson	Housing Authority of the City of Newark
Harold R. Mullen	Municipal Housing Authority of the City of Utica
Edward F. Fox	Reading Housing Authority
Thomas J. Dolan	Housing Authority of the Town of Harrison

ROADS

Dedicated Streets: It is recommended that the Authority consult with the City before the plans and specifications are made, and receive their approval of the specifications, so that when the roads are ready to be turned over to the City there will be no question of their acceptance.

Project Roads: A general discussion of all types of project roads was held, and it was the opinion of the committee that the most desirable types of road, in the order of their preference, are as follows:

1. Concrete
2. Concrete base with bituminous top
3. Bituminous

The Committee also recommends the crowned road with side drainage rather than the dished road.

It is recommended that no catch basins be placed in the center of any roads, but that all catch basins and drainage should take place at the sides.

Width of Roads: All project roads should be wide enough to allow for the passage of any standing vehicle.

Permanent Curbing: It was the consensus of opinion of this Committee that all roads should have permanent curbing, either of concrete or Belgian block.

SIDEWALKS

Composition: All sidewalks should be of concrete with a cinder bed for drainage, to prevent heaving and to provide for expansion joints.

Service Sidewalks: It is recommended that all service sidewalks to backs of buildings, drying areas, etc., should be a minimum width of two feet.

Design: On all corner points, sidewalks should be provided with semi-circular walks instead of the usual square corners.

The Committee feels that it would be advantageous to widen the sidewalk in front of entrance steps to provide for benches on either side as well as the parking of perambulators.

On all project streets that bear a large traffic burden of tenants and their children, sidewalks should be provided of a minimum of five feet, abutting such streets, as a safety measure.

Where concrete steps are necessary to adjoin sidewalks due to grades, it would be advisable to have concrete strips about 24 inches wide placed on both sides of the steps level with the external junction of the risers and treads, where grades allow. This will provide a runway for bicycles, roller skates, perambulators, and children's foot traffic. It is also felt that wherever possible, ramps should be substituted for steps throughout the grounds of the project.

Other Recommendations: All narrow, open dirt or shrub spaces between sidewalks and buildings should be eliminated by the use of either Belgian block or cement. However, beds for the planting of Boston Ivy should be left.

Hard surfaced walks should replace well established paths worn by residents and delivery men taking short-cuts across lawns.

Sidewalks should not have wood curbing.

PARKING AREAS

All parking areas should be enclosed with curbs at least 6 inches high.

Adequate drainage should be provided for all parking areas.

SITTING AREAS

All sitting areas should be of concrete.

TENANT OCCUPANCY

All Authorities were in agreement that when a certain section of a project is ready to be taken over by the Authority, such section should be taken over only after the roads and sidewalks are installed.

PLAYGROUNDS

Location: In the location of playgrounds, it is considered advisable to remove playgrounds from buildings which house mostly 1-bedroom units, as these will contain older people without children and young people without children.

Size: All agreed that projects should have at least one or two large playgrounds, according to the size of the project, to take care of the larger children. Such playgrounds should be free from playground equipment such as swings, Jungle Jims, etc., and such equipment should be placed in playgrounds which are intended for certain age groups who will utilize this equipment.

Spray Pools: It is felt that the best design for spray pools is either the circular or oyster shell. Sprinklers should be placed at a height of 7 feet to prevent tampering with by children. The turn-off valve for the spray pool should be placed in the crawl space or the basement of the nearest building.

Sand boxes should be eliminated from playgrounds.

GARBAGE

It was the consensus of opinion of this Committee that the best method of disposing of garbage and trash was by the use of incinerators, and that on all future projects incinerators should be provided for multiple dwellings.

In the case of row houses which are adjacent to multiple dwellings, an exterior hopper door should be placed in an accessible location for tenants of row houses. The combination method for multiple dwelling and row houses has proven very successful at COMMODORE PERRY (NY-2-3) Buffalo. The Newark Housing Authority has also been most successful with the use of incineration.

The collection of garbage from curbs and pick-up stations was reported unsatisfactory, due to the spilling of garbage at the curblines

and the unsanitary condition of pick-up stations, requiring excessive maintenance for cleaning up after garbage has been collected.

In two projects at Philadelphia, a built-in wall receptacle has been used with a garbage can inside. This has proven to be very successful, and tenants have been taught to clean up any garbage that may drop to the ground and to clean the can and receptacle from time to time.

CLOTHES POSTS

Whirligigs should not be used. Clothes posts consisting of either 4 x 4-inch wood or 1-1/2-inch pipe should be set in a concrete base.

Wherever possible, group drying areas should be placed in the back or at the ends of buildings.

Height should be not more than 6 ~~inches~~ *feet*.

LANDSCAPING

Trees: All trees should be planted balled and burlapped instead of bare rooted.

The Utica Housing Authority feels that the planting of evergreen trees close up against buildings and adjoining entrances is unsatisfactory, as the trees invariably die.

Shrubs: Shrub planting should be kept to a minimum, and trees and lawns accentuated. Where shrubs are planted they should be of a type with 15 or more canes rather than 2 or 3, as canes are apt to be broken by children, and the more there are the better likelihood of

the shrub surviving. Shrub areas should be located where heavy traffic will not break them and where they will not collect garbage or trash.

Vines: It is felt that the projects will be beautified by the generous use of a wall covering, and it is felt that the best covering to be used is Boston Ivy, which grows rapidly and if watched will not have a detrimental effect upon the masonry.

Topsoil: In new projects, before specifying the thickness of the topsoil to be placed on the subgrade, the soil should be analyzed, as in cases where the soil consists of a large percentage of clay it would be desirable to use a greater thickness of topsoil than normally used.

Ground Cover: Due to the unsuccessful experiments with ground cover, such as pachysandra and myrtle, it is recommended that ground cover in front of row houses be eliminated. However, on steep terraced areas, honeysuckle can be used to advantage.

Picket Fences: Philadelphia has been very successful with the use of picket fences around individual tenant areas. All such fences are of a more or less uniform design, made of wood about 20 inches high, and are either made by the tenants themselves, or are made by the maintenance division and sold to the tenants at a nominal cost (6 foot lengths @ \$.65). For the most part tenants have painted them white. This gives the tenants a financial interest in their lawns, and has proven to be very successful in maintaining lawn areas.

Use of Belgian Block: Where trees are located in paved areas it is felt that it will add to the appearance of the project to use Belgian block in tree pits.

The Newark Housing Authority felt that it would improve the appearance of large cemented areas to break them up with circles, diamonds or rectangles of Belgian block, where grass seed could be planted between the joints to relieve the monotony.

Subgrade and Landscaping Contracts: The Buffalo Housing Authority felt that the general contractor should be responsible for the final landscaping. In this way, a better job would be obtained, as he would be responsible for the successful growing of the grass, trees and shrubs, and would see that the subgrading was done properly.

On the other hand, this would probably prove more expensive, as the general contractor would sublet the landscaping work and would add his profit to that of the subcontractor.

EQUIPMENT

Every project should have a sufficient supply of landscaping tools and equipment, with power lawn mowers, with snow removal attachments.

Standard specifications calling for the purchase of such tools and equipment should be prepared and recommended to each housing authority.

It is the wish of this Committee to have a copy of this report, and of all other committee reports at this conference.

Respectfully submitted,

/s/

Hamilton Vogdes, Chairman
Frank J. Whelan, Co-chairman

DISCUSSION ON GROUNDS COMMITTEE REPORT

Mr. Beuscher: I might make a suggestion. Along with that power mower, that it have a snow plow attachment.

Mr. Kent: The height of the clothes posts should be not more than six feet.

On the landscape contracts, invariably we have the contractor give us a contract for a year and, if in the second year the shrubs and trees don't grow when replanted, we are out of luck. I think we should have a clause in the contract that if the trees and shrubs don't grow, the contractor should replace them. There should be a guarantee on the replaced trees and shrubs.

Mr. Vogdes: So much depends on the care taken of these trees and shrubs.

Mr. Ritter: How many feel we should ask the general contractor to guarantee his replacements? (None)

Mr. Kirpens: With respect to the concrete strips along the steps on grades, I don't think ramps would be practical where the grades are too steep.

Mr. Vogdes: We might modify that to make it practical. Where we have too steep grades, it can't be done.

Mr. Kirpens: I say ramps where ramps are practical because stairs are a nuisance.

Mr. Vogdes: We will modify that "where practical."

Mr. Henderson: You spoke about a curb four inches high for parking areas and highways. I think curbs should be made at least six inches high so that cars could not go over the curb.

Mr. Lawton: At the intersection of sidewalks and roads, I would suggest that they provide a ramp at street intersections for baby carriages.

Mr. Beuscher: The trouble with that is that the milk drivers at night think they are driveways and go right up on the sidewalk.

Mr. Vogdes: It seems like a pretty good suggestion to me.

Mr. Beuscher: The Committee reported cinders under sidewalks. That matter has been under discussion by the American Society of Highway Officials for many years. Most State and city associations have not recommended the use of cinders because instead of acting as a drainage, it acts as a trap or pool. Now that is a national highway recommendation.

Mr. Vogdes: That is very interesting because most of the Committee felt that the heaving of sidewalks was due to cinders not being placed under there, and that the cinders would act as a drain.

Mr. Beuscher: They have not had the proper compaction of soil under and adjacent to the bricks. We recommend the elimination of cinder beds for sidewalks. If you don't get the proper inspection and supervision, you don't get anything.

Mr. Meyer: We usually forget the lack of expansion joints.

Mr. Tryan: There was a suggestion that spray pools be 7 feet high but we find children still climb over them.

Mr. Vogdes: It was decided to have the high spray so that children would not put their clothes and climb on them.

Vote: 12 feel spray should be 6 feet high.

5 feel spray should be low.

Mr. Kervick: There was a recommendation made on combination incinerators for row houses. May I hear that again?

Mr. Vogdes explained the point.

Mr. Kervick: Has your Committee been able to solve the problem of row houses?

Mr. Vogdes: It has been for Philadelphia. We are probably the only project that has the type of garbage bin in the wall. On two of our projects this has been very successful. It does away with all garbage cans.

Mr. Kervick: Sounds good to me. I think it is a real problem.

STRUCTURES COMMITTEE REPORT

Committee:

Syl Hidinger, Chairman	Housing Authority of the City of Pittsburgh
Robert H. Tifft, Co-chairman	Buffalo Municipal Housing Authority
Wallace Johnson	Municipal Housing Authority of the City of Utica
C. H. Mustard	Housing Authority of the City of Camden
Anthony J. Kirpens	Municipal Housing Authority of the City of Schenectady
Thomas Kinney	New York City Housing Authority
Thomas P. Henderson	Housing Authority of the City of Perth Amboy
George R. Lawton	Federal Public Housing Authority
Colin Skinner	Federal Public Housing Authority

The discussion of maintenance and operation problems concerning structures naturally brings out many things in design which should not be repeated. Some of these items may be controversial, and it is desired to suggest some method of correcting not only past mistakes, but future mistakes.

When an architect takes a job of designing a housing project, he of course wants to impress everyone with his experience and competence. He therefore starts working immediately on his drafting board. A number of projects can be pointed out as instances of this method of design. One project can be pointed out where the architect spent two weeks asking questions of maintenance men, managers, and engineers of several existing projects. Their criticisms enabled that architect to design a project which will be easier to operate and maintain for the next fifty years. Now, is there some way we can force the architect, as a conditioned precedent to getting the job, to take the time and trouble to make such a study?

In other words, if we make full use of our mistakes, we can, in ten years, develop excellence in housing that would take private industry fifty years to achieve.

Foundation: Foundation walls of poured concrete enclosing laundries and public spaces should be provided with French drains at the footer level, and the entire exterior surfaces coated with mastic waterproofing. If masonry units are used in the above-mentioned walls, the outer surfaces should be parged, before the application of the mastic waterproofing. The specifications should not permit the back filling of any foundation walls before the waterproofing materials have had sufficient time to harden or set, so that they cannot be damaged or brushed off by the back filling. Back filling should never be placed directly against the waterproofing material. Protection of the waterproofing must be maintained.

Crawl Spaces: All crawl spaces should be rough graded to provide a minimum clearance of 3 feet 6 inches between the piping and the earth floor. Adequate ventilation must be provided for crawl spaces to prevent dampness and mildew during every season of the year, or at least 1 square foot of ventilation in each 25 lineal feet of foundation wall. If these openings are larger in area than 1 square foot, they must be located in the building for cross ventilation.

Exterior Masonry Walls: Adequate ventilation must be provided for between the brick and the back-up block, so that you get a complete

circulation of air between the two walls at this point. We should provide for expansion joints in the roof and floor slabs, and thermal insulation at the ends and edges of all floor slabs and roof.

Mortar for the construction of exterior brick masonry walls should be designed to suit local conditions and the use of patented mortars should be discontinued.

Floors: The surfaces of all concrete floors in dwelling units should be covered with mastic tile or linoleum, and the underside of concrete floor slabs existing over pump rooms, social service rooms and public spaces, should be treated acoustical materials.

The use of a finished wood floor without a sub-floor should be definitely discouraged. It is doubtful economy, that is, the cost of planking these joists and using paper over the finished floor, is probably as much as the saving on the wood itself. The delays due to working over the joists, either bare or planked, and the delays of papering the finished floor, make a definite loss of rent in the delayed completion of the building. The additional danger of the workmen walking on bare joists is considerable. Five men have been injured at Buffalo, NY-2-4, on the first two buildings. The spacing of floor joists should be on centers not exceeding 16 inches.

Finished oak flooring should not be specified a lower grade than No. 1 (which is the third grade of oak flooring).

Roofs: The construction of built-up roofing over flat wood and concrete decks should include interior roof drains and conductors.

In designing sloping roofs, the pitch of the roof and the weight of asphalt shingles should not be less than has been demonstrated to be satisfactory for that particular locality.

Eliminate the use of louver type dormer ventilators, and supplement them with louver ventilators in the ends of the buildings, and also reduce the size of the opening in the ventilators in the eaves.

Condensation: It is recommended that in projects where condensation gives trouble during cold weather, a definite educational program should be attempted to explain to the tenants the basic cause of the trouble, and suggest a thorough ventilation of the unit, by operating the window ventilating sash.

The alternative is steel sash with ventilator or wood sash.

Hardware: The use of push-button stop works in the face plate of apartment entrance door locks, should be discontinued or rendered inoperative, and thereby prevent many accidental lockouts. Door closers on exterior doors should be attached or installed on the inside to protect it from the elements.

Standardization: There should also be standardization of parts, materials and sizes.

Respectfully submitted,

/s/

Syl Hidinger, Chairman
Robert H. Tifft, Co-chairman

DISCUSSION ON STRUCTURES COMMITTEE REPORT

Mr. McMann: I can't see how you can determine the height of the crawl spaces by the pipes. I think a definite height should be given there. Also in the crawl space it should specify lights would be installed in there. I would suggest the lowest height should be at least four feet to the beam.

Mr. Kent: Fortunately, the committee on which I happen to be chairman also took up the question of crawl spaces. Our recommendation was that all crawl spaces should be eliminated because in all cases it is the greatest maintenance problem that we have. It is more economical to eliminate altogether all crawl spaces. We would make a full basement.

Mr. Speck: I think there should also be convenience outlets provided in crawl spaces in addition to electric lights.

Mr. Beuscher: I might say the plumbing and electrical committee also took up that matter and we suggested sufficient crawl space, and sufficient lighting and also that if the excavation were so made that you couldn't put a floor in, that you put cinders.

There is a matter I want to bring up about brick work. The U. S. Bureau of Standards and the American Society of Testing Materials have made exhaustive experiments on brick work and if their recommendations are followed you won't have any trouble with brick work.

Mr. Lane: I think we should have full basements, speaking for the Pittsburgh Housing Authority.

Mr. Kirpens: I am in favor of a full basement.

Mr. Drumbor: There should be a catwalk through the crawl space to keep the men out of the mud.

Mr. Schmid: The cost of putting in a full basement will be allayed in years to come by savings in exterminating costs, etc., in crawl spaces.

Mr. Ritter: How many think a four-feet minimum crawl space height satisfactory? (15)

How many think a full basement area is necessary?

(Unanimous)

Mr. Genung: I think a distinction should be made whether or not this applies both to row houses and multiple family dwellings.

Mr. Jamieson: Your Committee recommended grills for some basement windows. I think a protective mesh should be put on all basement windows.

Mr. Davis: In Queensbridge we are in the process of doing just that now. The cost of replacement has been so enormous that we have had to put in this 3/8-inch wire mesh which should have been done in construction, protecting all basement windows.

Mr. Loeser: Your Committee mentioned locks on all skylights. I don't think that's advisable.

Mr. Hidinger: The reason for the Committee's recommendation for locks on roof doors and skylights was that the wind was blowing these 200-pound doors off. These roof locks could be broken in times of emergency.

Mr. Kent: On parapet walls we have had considerable trouble with them because they were constructed of brick. When they are made of reinforced concrete we have no trouble at all. When made of brick they are pushed out at the corners. We recommend that brick parapet walls be excluded from all future housing.

Mr. Beuscher: We are now using the concrete slab because we had much the same trouble Mr. Kent had with brick parapet walls.

Mr. Fox: I would like to recommend that all face brick walls be parged to do away with leaking.

Mr. Jamieson: I don't think there was anything said about covering concrete beams in houses to prevent condensation.

Mr. Ritter: How many have walls that don't leak?

New York
Eric
Beaver County
Schonectady
Philadelphia (on the Aided Projects)
Long Branch

How many would use wood sash on projects were you building now?
(About 20)

How many would use steel sash?

Philadelphia
Perth Amboy
Long Branch

How many would use a rough-textured colored wall surface?

(None)

All would use then a smooth wall surface painted.

COMMITTEE REPORT ON CENTRAL AND GROUP HEATING PLANTS

Committee:

George R. Genung, Chairman	New York City Housing Authority
Robert Lane, Co-chairman	Housing Authority of the City of Pittsburgh
Frank Nicoletti	Philadelphia Housing Authority
Frank Speck	Buffalo Municipal Housing Authority
John Bicking	Housing Authority of the City of Newark
Edward Bensel	Housing Authority of the City of Trenton
Charles H. Reid	Housing Authority of the City of Atlantic City

Any attempt to evaluate designs and plants and equipment or to recommend procedures for the developments is complicated by the variation in the types of systems in operation at the projects represented by the several members of the Committee. These included the following: central high pressure steam, mechanically fired; under feed stokers, bituminous coal; central high pressure steam, oil fired; central high pressure steam, chain grate stokers, anthracite coal; central high pressure steam with heat exchangers, forced hot water circulating system; central plant forced hot water system; central or group low pressure, stoker fired; central or group low pressure, hand fired.

The Committee was not disposed to make recommendations on the types of plant or heating system that should be installed in future projects. This determination should be left to the technical staff after a complete analysis of the relative economy of construction and operation in each individual case. It was, however, the consensus of opinion that the number of plants in a project should be limited to the minimum consistent with reasonable first cost and cost of operation. A single plant, preferably low pressure, is preferred.

It was pointed out that many Authorities had not called in the Superintendent of Maintenance during the development of plans and specifications in the past and that many costly changes during construction might have been avoided by a careful review before contracts were awarded. Perhaps the maintenance superintendents were too modest and should have requested the opportunity to review the proposed layouts.

Adequacy: It is recognized that considerable variation exists in the factors used by engineers in designing a heating system. It is just as serious a fault to oversize piping, radiation, and equipment as to undersize these elements of the system. There should be sufficient experience in housing to establish design loads with a fair degree of accuracy. The objective should be to attain a degree of flexibility to permit the boilers in service to operate at a reasonable percentage of rating on minimum load without excessive overloading to take care of peaks. Particular attention was called to the necessity of adequate stack, furnace volume, and auxiliary equipment.

Boiler Plant: Space provided in most instances has been so restricted as to hamper operation. Conversion of all oil fired plants to coal has created serious problems. It is recommended that space be ample for conversion to any type fuel that may be necessary in the future; that coal bunkers be provided adjacent to boiler rooms with a minimum of one month's consumption for extreme weather conditions; that mechanical means be provided for conveying coal from bunker to hopper at the boiler and that preferably a weigh lorry be installed. Space

should be ample for drawing and replacing tubes in boilers, heat exchangers, preheaters, and hot water generators. Provision for a ready access for replacement of equipment should be made.

Distribution: Three methods in use for carrying underground distribution system are: (a) Pipe tunnels; (b) Tile conduit; (c) Prefabricated conduit. Tile conduit which does not keep out water is not recommended. Where used, base drains should be provided with adequate cleanouts. Satisfaction has been experienced with pre-sealed conduit but due to the short period of time in operation no conclusions can be reached. It is the consensus of opinion that pipe tunnels should be provided where feasible. One Authority uses the top slab as a sidewalk which absorbs most of the differential in cost. It is felt that future replacement costs will justify some additional expenses for pipe tunnels. Expansion of pipe should be taken care of with pipe bends wherever practical. All underground mains should be welded. Flexible expansion joints should be avoided and, if necessary to use expansion joints, the slip joint or mechanical joint should be employed. All expansion joints should be readily accessible through manholes or otherwise. It was the opinion of several members of the Committee that many expansion joint troubles were caused by improper alignment. Sectionalized loop distribution systems are recommended.

Heating System:

A. Hot Water Circulating Systems--Very satisfactory type for tenant comfort, providing 24-hour operation is maintained. It was generally observed that controls now being provided lack sensitivity. Difficulty

was observed in adjustment to extreme changes in temperature over a short period of time and for operation in mild weather. Several Authorities stated that they had resorted to manual control. It is recommended that further research be made to determine whether the present type of control for hot water systems cannot be improved or a new type developed to get better regulation and better economy.

B. Steam Systems--It is generally agreed that vacuum systems are more efficient and generally more satisfactory and high vacuum using a sub-atmospheric steam adds to both economy and tenant comfort. A real control system should be insisted upon and the specifications so written that will permit recognized manufacturers of reliable equipment to compete. A cheap system of heat control is poor economy. Control radiators should be located in spaces not affected by the opening of doors, windows, etc.

Equipment: The following recommendations are offered:

Pumps--All pumps should be provided in duplicate sets including boiler feeds, condensation, vacuum pumps, circulators for hot water systems, oil pumps, and sump pumps. Electric pumps should be three-phase. Where steam feed water pumps are installed an auxiliary electrically operated pump is recommended. Pumps for all purposes should be adequately sized. Where cellar or basement spaces are subject to collection of storm water, a portable gasoline or electric pump should be provided in the project. Vacuum pumps located outside the boiler room should have remote control switch located in the boiler plant.

It is recognized that a large percentage of operating cost of coal-fired plants goes for labor. Insufficient attention has been

given to ash-handling equipment. Such facilities should be provided. Hoists should be electrically operated and in high pressure plants mechanical conveyors are recommended. The pneumatic type has been found more successful than the jet type.

Accessories and Instruments: Boilers should be provided with ample blowdown facilities, provision for taking a true sample of water for testing and suitable chemical feeding devices. Low water cut off of approved design located in water column and adjustable to give protection to fuseable plugs should be provided. Soot blowers should be provided. Feedwater regulators are recommended for all multiple boiler plants. In high pressure central plants the following is recommended: air flow pens on steam flow meters; flue gas temperature recorders; CO₂ recorders; water meters on feedwater and make-up lines; smoke indicators in localities where anti-smoke ordinances exist; draft gauges, three-dial type. Feedwater pumps should have excess pressure regulators. In low pressure plants the steam flow meter would be omitted.

In both steam and hot water systems distribution mains should be sectionalized by inserting additional valves in order that repairs can be made without shutting down the entire system. Suitable valves should be installed on heat exchangers to permit repairs without interrupting service to dwelling units.

Pumps should be insulated to prevent travel of noise through the building. Floating the pump base on a cork slab has been found effective.

One Authority, having a system wherein the boiler is continually under vacuum, requests that a relief valve be provided to permit blow-down and the sampling of boiler water.

General provisions: It is recommended that all rooms or spaces containing mechanical equipment be provided with adequate ventilation and protected against dampness, condensation, and flood. Several Authorities have had complaints from tenants of hot or cold floors. Hot floors occur over boiler rooms, tank rooms, laundry dryers, etc. Ceilings should be insulated or furred down. Cold floors occur over unexcavated areas and crawl spaces. Air may be tempered by leaving steam lines bare, in which case adequate ventilation must be maintained. Floors may otherwise be insulated.

It is recognized that too often specifications are so general that equipment of inferior grade is selected purely on the basis of price. We want to keep costs down but we do not agree that the lowest priced article is cheap. It may be the most expensive in the long run. If manufacturers' names cannot be used, the recommendations should be such as to restrict competition to the better grade of equipment.

Drawings: The specifications should require that a complete set of as-built drawings, together with manufacturers' catalogs giving an identification of replacement parts, shop drawings and full description of operation and equipment, be turned over to the maintenance division upon the completion of the job.

Respectfully submitted,

/s/

George R. Genung, Chairman
Robert Lane, Co-chairman

DISCUSSION ON CENTRAL AND GROUP HEATING

PLANTS COMMITTEE REPORT

Mr. Kirpens: I think, where possible, drying rooms in the projects should be provided with separate heating units during the summer months.

Mr. Speck: We turn the heat off during the summer time in our drying rooms and just use the blower.

Mr. Mustard: In Westfield Acres we have drying rooms that were converted about four years ago to unit heaters.

Mr. Baublitz: I think we can make a general statement that for twelve-month drying a basement compartment without ventilation by means of a fan, and heating during the summer months, is generally not considered adequate. You will find pretty generally that heat and ventilation must be provided in about 40 E.D.R. and 150 C.F.M., to get drying fast enough so that two tenants can use a drying compartment in a day.

Mr. Beuscher: We have mechanical and gas dryers. We have nickel slots in them.

Mr. Cole: I have boiler rooms that control heating of 50, 60 or 70 units. In the event of a breakdown there is no possibility of heating these units. If there could be a connection between plants I think it would relieve emergencies.

Mr. Genung: It was the opinion of the Committee that the plants be as large as possible and reduced to a minimum. If the project is small enough, we would suggest that you use only one plant.

Mr. Vogdes: For the benefit of other Authorities, I would like to speak against small group plants. We have 17 small group boiler plants and they have been a frightful headache. They are very expensive and very unsatisfactory. With anthracite stokers, we had a stoker built for residential use by a commercial stoker company that decided to go into residential stokers, and we were the guinea pig. We have had a great deal of trouble with it, to say nothing of the ashes.

Mr. Fox: We are burning rice coal. The first year we had a lot of trouble with our stokers but have overcome that and in the last winter we have had very little trouble. In the first place they weren't installed right. There were too many grates. It is a center retort stoker.

Mr. Baublitz: The one Mr. Vogdes speaks about is a side retort stoker.

Mr. Speck: I think you will find the Committee recommended a loop system for steam and hot water. I would like to have the committee report revised because that was one of the items discussed and not reported.

Mr. Baublitz: On location of heating control panel boards, which do you prefer: project location or in the boiler room where your operating man can get hold of it.

Mr. Speck: That should be right in the boiler room. If there is a central plant that should be placed in the boiler room.

COMMITTEE REPORT ON TENANT-OPERATED HEATING

Committee:

Harry J. Kearney, Chairman
George A. Drumbor, Co-chairman
Arthur C. Palmquist
Charles White
George Dodds

John M. Casler
Ralph Grinder

Allegheny County Housing Authority
Bethlehem Housing Authority
Housing Authority of the City of Erie
Fayette County Housing Authority
Housing Authority of the County of
Beaver
Johnstown Housing Authority
Westmoreland County Housing Authority

Weather Stripping: It is the consensus of opinion of this Committee that if a more satisfactory job of weather stripping be installed, many of our heating problems would be eliminated. The practice of using spring-type weather stripping on the bottom of the door is impractical, and should be eliminated. If it is impossible to secure the interlocking-type threshold, then we feel that no weather stripping should be placed on the bottom of the door.

We recommend combination storm and screen doors, and also storm windows, at least on northern exposures, as another means of eliminating infiltration of cold air and helping the heating problem in general.

Gas-fired Hot Air: Used chiefly in Western Pennsylvania projects. Automatically controlled gas-fired forced hot-air furnaces are entirely satisfactory, and we believe they will give a minimum of trouble when the tenants are educated to the fact that these are very delicate and should not be tampered with.

We suggest that the manufacturer be requested to enclose all controls so that a lock can be placed thereon.

We recommend that in every case cold-air return ducts be used as a standard, preferably a separate duct from each room.

We also recommend air filters and humidifiers be incorporated in the original construction.

We suggest that the manufacturer of these furnaces give some consideration to the problems of servicing this equipment. Fans and motors should be made more accessible.

Many of our tenants have been using their forced-air heating system for an air-conditioning system during the summer season; as a result, an enormous maintenance expense is anticipated on electric motors.

We recommend that a satisfactory motor be installed to take care of this air-conditioning, or some national policy be decided for making it impossible to use the unit for this purpose either by removing the motor or some other simpler means.

The same conditions apply to coal-fired forced hot-air heating system as applied to the gas-fired with the exception of the burner trouble, etc.

Hot Water Systems: Coal-fired hot water heating system seems to be the most satisfactory of all systems, and very few changes can be recommended. We do feel, however, that provisions should be made for draining the system directly to the sewer to save the nuisance of water in the crawl space.

We recommend that, on future installations of hot water heating systems, chemical analysis be made of the water supply to determine

whether or not water treatment will be necessary or advisable, in which case the apparatus for feeding this treatment should be incorporated in the original installation.

Respectfully submitted,

/s/

Harry J. Kearney, Chairman,
George A. Drumbor, Co-chairman

DISCUSSION ON TENANT-OPERATED HEATING

COMMITTEE REPORT

Mr. Kearney presented his report and the following modifications and additions were suggested thereto:

Mr. Schmid: I would like to recommend that the cold-air return lines emanate from the outside wall, preferably under the window; also valves be placed on all hot water radiators.

Mr. Lane: The location of the thermostats is 18 inches above the floor. Consequently, the living level is not represented. We recommend the location of thermostats in the living room five feet above the floor. We have had children tampering with these thermostats.

Mr. Ritter: How many have tenant-operated heating plants in one or more of your projects? Not many. I would like to ask what should be the size of the tenants' coal bin in capacity of coal.

Recommendation: Two tons.

Mr. Ritter: How many feel an individual tenant-operated heating plant will satisfactorily heat a dwelling with concrete floors?
(About 5 or 6)

Then we are not going to object to individual tenant-operated heating plants for dwellings with concrete floors. (No serious objection to that)

What should be the location of the furnace in an individual unit? Should it be in the kitchen space or should there be a room for it?

Mr. Drumbor: I think the furnace should be in an individual room. When it is in the kitchen or adjacent to the kitchen, the tenants object to ash dust flying through the kitchen.

(It was agreed that the furnace should be in a separate room.)

Mr. Ritter: On the location of heating supply ducts--tenants complained that the floors are cold in winter when you have individual heating units.

Mr. Schmid: The cold-air duct should be on the outside wall.

Mr. Kirpens: The cold-air duct should be connected with the outside wall with a sliding shutter.

Mr. Kane: How do you feel about locating the heating supply duct near a stair well?

(It was recommended that it should not be located near a stair well.)

Mr. Ritter: Any complaint about the space between the furnace and the coal bin?

Mr. Drumbor: The furnace should be located in a spot so that a person could have elbow room. The space should be not less than three to four feet.

Mr. Ritter: The design and structure of a coal bin should be such so that the water does not run from the coal into the kitchen. The coal bin floor should be a little lower than the kitchen floor.

Mr. Schmid: Our coal bin floors are pitched away from the kitchen. The slope of the roof is pitched away today.

(It was recommended that the coal bin floor be sloped away from the kitchen with air holes.)

Mr. Ritter: What should be the height of the flue for an individual heating plant?

Answer: At least above the roof.

Mr. Ritter: What protection or finish would you give to the wall around the stove pipe?

Answer: There should be ample protection.

Mr. Lane: We have a project in Pittsburgh with 440 units, in which no provision was made to get the coal to the house.

(It was recommended that access should be had to the coal bin for the chuting of coal so that it would not be on the lawn.)

(Another recommendation was that where the coal trucks do back up on the sidewalk, it should provide an eight-inch sidewalk to prevent broken sidewalks.)

Mr. Kearney: I have a project where you carry the coal through the living room into the kitchen.

Mr. Baublitz: Mr. Lane mentioned the location of thermostats. He also mentioned that it is possible to move the thermostat to 85°. In many of our projects we don't have check meters for gas--only master meters. Does anyone have any definite recommendations as to what we should use for a thermostat? Should it be a conventional thermostat with a locking device or a thermostat with a maximum setting of say 75° F. What would you suggest for a practical type of thermostat?

Mr. Lane: I am inclined to be against any type of device that is locking. I think the tenants will manage to unlock anything you put on. I say a thermostat with a range from 70 to 75.

Mr. Baublitz: I was referring to a limiting device rather than locking.

Mr. Genung: Is there any provision for night temperatures or does that thermostat remain open all night long?

Mr. Baublitz: There is no night setting. The tenant has to lower it.

Mr. Kearney: The question of fixed thermostats was discussed by the Committee. Most of the members felt that there should not be any close regulation.

Mr. Baublitz: How many feel that we should, through our Development Branch, make some effort to get a thermostat which cannot be set above a reasonable limit, such as 75° or 78°? This would be only limiting your maximum to 75°--not locking it.

(Seven agree to 75°)

(Two agree to 78°)

COMMITTEE REPORT ON

PLUMBING AND ELECTRICAL RECOMMENDATIONS FOR FUTURE CONSTRUCTION

Committee:

William C. Beuscher, Chairman	Housing Authority of the City of Jersey City
William O'Brien, Co-chairman	Housing Authority of the City of Syracuse
John M. Murray	Housing Authority of the City of Newark
Ernest Angelo	Allegheny County Housing Authority
Joseph F. Smith	Housing Authority of the City of Newark
Robert J. McMahon	Housing Authority of the Town of Harrison
Maxwell Levy	New York City Housing Authority
Charles Rutter	New York City Housing Authority
Arthur J. Flanigan	Federal Public Housing Authority

It is felt that the plumbing inspectors have been too lenient, and that someone should step in and see that the buildings are inspected properly before they are turned over for occupancy. More authority should be given to the Federal Public Housing Authority Construction Adviser, who should make the final determination of plans and specifications in all cases.

It is recommended that in every unit stop cocks should be placed where they are most accessible to turn off the water, so that in the event of a leak it will not be necessary to turn off a number of other units at the same time. Unexcavated areas should be provided with sufficient lighting and should be so constructed that there is sufficient room to work around in them.

Individual control valves should be installed in each unit for control of the hot and cold water.

All hot water circulating pumps should be thermostatically controlled.

All stacks should be provided with accessible clean-outs located in the basement. All lateral waste lines fitting sinks, lavatories, tubs, etc. should be provided with a full size clean-out at the end of the run.

All hose bibbs should, wherever possible, be located on the exterior walls in most convenient points for accessibility to grounds. Practice of installing hose bibbs or hydrants in planted areas should be eliminated wherever possible.

Provide a by-pass connection between hot and cold water immediately above the hot water tank to permit the draining of the hot water tank without taking the pressure off the piping system. This will eliminate considerable work and cut down on the number of floods caused by the tenants leaving the faucets open when the water service is returned to the system.

In all cases, the hot water tanks should be constructed of non-rusting material, or provided with a suitable rust preventative lining.

Do not install restricted flow water closets. (Red Hook Houses, New York City)

All hot and cold water pipes should be covered in all spaces, whether they are concealed or not.

All plumbing fixture trimmings should be so designed that they permit the use of one size washers for the entire project.

Electrical: All lighting fixtures should be controlled by Toggle switches in lieu of pull chains. This includes all apartments, public services, etc.

Some study should be given to the present type of bedroom and bathroom fixtures now being used. Maintenance men are experiencing considerable trouble in securing replacement parts as this appears to be a special fixture. It is suggested that the combination of the receptacle switch and socket be discontinued and a separate duplex base receptacle be installed in the wall proper.

All main distribution panels should be placed in an accessible room separate from the incinerator. The space should be so arranged that it will not be necessary to pass through storage rooms, etc. in order to get to the electrical panels.

All basement ceiling lights should be so placed that the light is not obstructed by piping.

The method of employing breakers in lieu of fuses has proven to be the better type of installation, and it is suggested that on future jobs all circuits be protected with the conventional type of circuit breaker.

Duplex base receptacles should be of the standard heavy duty type.

All time switches and time clocks should be wired separately from the lighting system which it controls.

Wherever feasible, all electric main services should be under ground.

On the completion of a new project a complete set of plans should be supplied to the Maintenance Superintendent showing conditions as built.

A number of the projects of the various Housing Authorities have experienced trouble with the accumulation of water in the electric conduit. It is believed that this water or condensate gets into the system when the job is originally built and that the swabbing of the conduit before pulling the wire would eliminate this condition.

Respectfully submitted,

/s/

William C. Beuscher, Chairman
William O'Brien, Co-chairman

DISCUSSION ON PLUMBING AND ELECTRICAL

COMMITTEE REPORT

Mr. Mustard: I would like to make a recommendation, specifically, that stop valves be installed on the inside of buildings.

Mr. Drumbor: I would like to recommend where you have groups of valves in crawl spaces, that each individual valve should be marked as to what unit or apartment it shuts off.

Mr. Baublitz: The ideal is a fixture stop but if we can't get that we should have in each apartment one shut-off valve for hot water and one for cold water.

Mr. Kearney: I think fixed thermostats should apply to hot water tanks too.

It was recommended that there should be a limiting device on the temperature control for domestic hot water where you have individual hot water tanks in each unit. It was also recommended that hot water temperatures be limited to 140° maximum setting in individual hot water heaters, and a 30-gallon tank be the minimum tank.

Mr. Kearney: Never put a terra cotta sewer under a building. Where regulations demand a house trap, I recommend that nothing smaller than a six-inch trap be used, and where regulations do not demand a house trap, all house traps be eliminated.

Mr. Baublitz: I think that is an exception to the rule.

Mr. Beuscher: We discussed that very matter when we were going over your papers. I understand that these buildings with crawl spaces under them and the terra cotta pipe is buried under ground. I think the trouble is not with the terra cotta pipe but with its laying and with the foundation of the building.

Mr. Baublitz: On individual dwelling units or row houses, how many have had trouble with freezing within the units themselves? (One-- Alfred Vail Homes)

Mr. Kent: In connection with the storm drainage system, invariably it seems, municipalities have no control over the situation and the contractor draws his own designs. We have trouble in Newark because the storm drainage systems are undersized. It isn't designed properly.

Mr. Skinner: We ask the Local Authority to contact all local agencies on those things.

Mr. Kent: In this case the FPHA felt that the size of the drain pipes should be reduced and we felt we had to go along.

COMMITTEE REPORT ON

PAINTING AND MAINTENANCE FACILITIES

Committee:

William D. Burke, Chairman	Philadelphia Housing Authority
Peter Yablonsky, Co-chairman	Housing Authority of the City of Newark
Joseph Bradley	Housing Authority of the City of Atlantic City
Jesse J. Loeser	New York City Housing Authority
Maurice F. Tryon	Housing Authority of the City of Elizabeth
George Rafferty	Housing Authority of the City of Long Branch
Sam Haverstick	Housing Authority of the City of Trenton
Gifford Cole	Housing Authority of the City of Camden
Vincent J. Freidhoff	Johnstown Housing Authority
Arthur M. Davis	New York City Housing Authority
Melvin E. Kessler	New York State Housing Authority
Philip G. Bartlett	Federal Public Housing Authority

The list of questions given below were discussed and the following recommendations agreed upon:

Type of wall surface and original paint to be used.

Type of paint and number of coats that should be used.

Recommendation: It is recommended that plaster walls be given ample time to dry before paint is used, about six months to one year, and that the original finish be brought to a semi-gloss, consisting of three coats of sealer-primer undercoat. A semi-gloss finish is washable, has durability and leaves a good surface that can be recoated. It was also recommended that kitchens and bathrooms be enamelled. It was also recommended that no tinted plaster be used.

Man hours required for the complete paint job of 3, 4, and 5-room dwelling units.

Recommendation: It was recommended that no definite conclusion be arrived at concerning this question as too many individual problems must be taken into consideration. Therefore, the time element was eliminated.

The correct method of painting a steel sash that has become rusted.

Recommendation: The rust on the steel sash should be scraped to bare metal, then washed with turpentine or a similar material and let dry thoroughly, then a thin coat of red lead applied and allowed to dry thoroughly. A finish coat should then be applied on top of this. On a wood sash, a lead and oil paint should be used.

Comparison between rough sand-finished plastered walls and smooth-finished plastered walls.

Recommendation: It was unanimously agreed upon that the Committee go on record as favoring a smooth-finished plaster in preference to a rough-finished plaster. A smooth finish is easier to clean, paint, and in general much easier to maintain.

What type of paint would be the best to use in painting the dwelling unit ceilings?

Recommendation: It was recommended that on concrete ceilings primer-sealer should be used and brought to a flat oil finish. It was also recommended that the use of oil textured finish should be discouraged as it fails to hide the joints as it was intended for, requires more time in applying, takes more paint, has a tendency to loosen and is impossible to clean.

Should tenants be allowed to paint their own apartments?

Recommendation: It was recommended that the tenants be prohibited from painting their own apartments. Some of the reasons given for this decision were accidents, dissension among neighbors, and also lead to future paint failure because of improper application.

Should wallpaper be used in FPHA projects?

Recommendation: It was recommended on a definite agreement that wallpaper should not be used as it was considered unsanitary, hard to keep clean, and not durable.

MAINTENANCE FACILITIES

On the question of storage and maintenance conditions, the following recommendations were made:

Recommendation: In planning for maintenance storage rooms, a separate storage room for materials should be set up independently, but adjacent to the maintenance shop.

Every maintenance shop should be provided with all necessary electrical facilities and outlets for power machinery, shelves, and containers for various types of nails, bolts, shields, screws, plumbing items, etc.

Between the boiler room and maintenance shop there should be a shower for the maintenance men and lockers for their clothes.

The storage room entrance doors should be at street level, or ramped upward or downward and of a width that will permit the wheeling in or out of materials or equipment required for the maintenance and operation of a project.

It was also recommended that storage space be provided under each building for tenant storage, screen door, etc.

Respectfully submitted,

/s/

William D. Burke, Chairman
Peter Yablonsky, Co-chairman

DISCUSSION ON PAINTING AND MAINTENANCE

COMMITTEE REPORT

Mr. Burke presented the committee report and the following modifications and additions were suggested:

Mr. Schmid: Why did the Committee report they did not permit tinted plaster?

Mr. Yablonsky: You could not get a hard plaster with tinted plaster and you could not get an even finish with tinted plaster.

The recommendation was that we do not use tinted plaster.

Mr. Whalen: What should be the average interval of scheduled painting?

Mr. Yablonsky: We did not take that up.

Mr. Ritter: How many are painting every three years?

New York
Asbury Park

How many are painting every four years?

Elizabeth
Atlantic City
Schenectady
Allentown

Mr. Yablonsky: Your painting on new projects cannot be held down to any time schedule because of the errors in structure. Where you have a good foundation or where your paint job has been built up, then you can more or less regulate your painting.

Mr. Kervick: This question is tied in with the original paint job. I think generally speaking, where there is an oil job that we contemplate repainting every three or four years. Monies have been set up in our budgets on those estimates. Where you have a resin emulsion job, painting will have to be done before this period.

Mr. Vogdes: I would like to recommend that we hold off painting for a year after the completion of the project until the plaster has set.

Mr. Ritter: How long should we have a job finished before we paint.

Mr. Yablonsky: There is no question that plaster should be allowed to season. You could put a casein paint on that job for decorative purposes, and then after a year or so start your paint job afresh. I would also like to point out that we recommend a three-coat job. The success in painting is the way you build it up. A good paint job is dependent on its undercoat.

Mr. Skinner: The committee report recommends ample time before the first application of an oil paint. Does that ample time mean three weeks, three months, or twelve months?

Mr. Yablonsky: With a good plaster job ample time can mean one month; with a poor job two years is not ample time.

Mr. Kervick: On this question of resin emulsion, in Elizabeth we had a first class headache on the first project as far as paint was concerned. On the second project we started out with resin emulsion. Now the project is about to start repainting. It is

two years in occupancy and has stood for that time with resin emulsion and now they are ready to start with lead oil paint.

Mr. McMann: We have been talking about the trouble we have had with casein. Now we are going to recommend casein!

Mr. Genung: Casein is not a cure-all where there is dampness in the walls.

Mr. Yablonsky: You have to have a good plaster to start with.

Mr. Kent: My suggestion is this: that we should avoid using casein or any other paint except oil paint. - - -

Mr. Ritter: The answer is first have a dry plaster wall before we paint, and then paint with an oil paint.

Mr. Ritter: How much maintenance space do you think a project should have?

Mr. Kent: I think it is something that can be easily figured out. It all depends on whether you are referring to central maintenance or individual project maintenance jobs. An individual project ought to have at least between 1,000 and 1,500 square feet. Where you have central maintenance you also should have between 800 and 1,000 square feet.

GENERAL COMMITTEE REPORT

Committee:

David Kent, Chairman	Housing Authority of the City of Newark
William T. Smith, Co-chairman	Housing Authority of the County of Beaver
Alphonse Gentile	Housing Authority of the City of Camden
George Green	Housing Authority of the City of Long Branch
T. Richards	Housing Authority of the City of Elizabeth
Lester F. Joste	Housing Authority of the City of Asbury Park
George Brooks	Housing Authority of the City of Paterson
William Desch	Housing Authority of the City of Allentown
Joseph A. Schmid	Housing Authority of the City of Erie
J. Grimm	Fayette County Housing Authority

Gas Ranges: Our suggestion is that we should, in the future, plan to have the gas ranges placed at a distance from the windows. It is also suggested that an incombustible material be placed in the back of the gas range to prevent fire.

The consensus of opinion is that tenants should not be permitted to replace our gas ranges in any of the dwelling units.

Shelves: We recommend as a safety measure that all kitchen cabinets be removed from over the gas ranges and installed at another place where they will be convenient for housewives.

It is recommended that all utility rooms be provided with a sufficiency of shelves.

Refrigerators: We recommend that a serious study be made as to the cost of maintenance and operation of gas and electric refrigerators.

It is also recommended that future specifications exclude clauses calling upon the company furnishing electrical refrigerators for more than a one year guarantee and maintenance clause.

We recommend that local housing authorities, through their management, discourage moving out project's own refrigerators and permitting tenants to install theirs in the kitchen. This situation represents a serious maintenance problem. By discouraging such moving, we will reduce the maintenance problem to a considerable extent.

It is the consensus of opinion that in the design and layout of the kitchen, considerable thought should be given to the wall space and to the general arrangement of utilities and equipment, depending upon the size of the dwelling unit.

Refuse Handling: In connection with refuse handling facilities, it is recommended that individual responsibility of tenants be not only encouraged but insisted upon in order to maintain the projects in clean and sanitary condition; rather than community responsibility, which results in no responsibility at all, except that Management, in the final analysis, is compelled to assume the entire responsibility of maintaining the projects.

Incinerators: In the future design of incinerators, the specifications should definitely call for the General Contractor to furnish the necessary incinerator equipment, and Management should be apprised of the need for the equipment. Under no circumstances should the Contractor be back-charged in the event he fails to comply with the conditions of the specifications, but compelled to perform as stipulated.

It is recommended that all incinerator stacks extend at least five feet above roof levels.

Storage Space: In the design of a project, a sufficient amount of storage space should be provided for the individual tenant for the storage of garden tools, screens, etc.

Provision should also be made for a central maintenance storage room calculated to take care of all needs for a project.

Screen and Storm Door Combination: In row housing, it is recommended that a combination screen and storm door be provided.

Crawl Spaces: In row housing, it is recommended that all crawl spaces be eliminated and cellars provided for the tenants.

Doors for Closets and Cabinets: It is recommended that the present policy of providing doors for overhead kitchen cabinets is sufficient.

It is the consensus of opinion that in future planning of projects, doors should be provided for all closets.

Miscellaneous: In the post-war planning of housing, it is recommended that a sufficient number of showers be installed in all maintenance shops, and that other maintenance facilities be provided.

It is recommended that there be a closer cooperation between the Technical, Maintenance, and Management Sections of FPHA.

It is also recommended that the Technical Section take a greater interest in the maintenance problems of the Local Authority in planning for post-war housing.

Respectfully submitted,

/s/

David Kent, Chairman
William T. Smith, Co-chairman

DISCUSSION ON GENERAL COMMITTEE REPORT

Mr. Kent read the committee report and the following modifications and additions were thereupon made:

Mr. Kearney: On our projects we were not allowed a full quota of gas ranges on the basis that tenants would want to bring in their own ranges.

Mr. Beuscher: I might say that that is true also of refrigerators right now.

(Suggestion was made to have analysis drawn up of economy of gas ranges as compared with electric.)

Mr. Kirpens: I think refrigerators for 4- and 6-room apartments are too small.

Mr. Kent: We discussed that phase too but I don't recall whether or not we reached a definite conclusion. The consensus of opinion was that it should compare to the size of the dwelling unit.

Mr. Baublitz: How many people feel that the four-cubic foot box is too small for a two-bedroom unit and over? (all) Six cubic feet is necessary for those.

Mr. Skinner: Before Pearl Harbor we planned to have six cubic foot standardized refrigerators for all units.

Mr. Lawton: I would like to stress the importance of providing adequate footing drains in cellars.

Mr. Baublitz: This morning we did recommend footing drains as well as parging and waterproofing the exterior wall.

Mr. Genung: I don't think it is absolutely necessary to have doors on all closets. One closet with a door should be enough.

Mr. Whalen: I would like to recommend a standardized size of light and glass.

Mr. Genung: There would have to be a limitation put on the size of glass because in one of our projects the lights were made so large two men have to handle the glass.

(It was recommended that lights and glass be standardized to simplify maintenance and reduce costs.)

Mr. Skinner: Flat versus sloping roofs has not been discussed at all. I would like to hear if there is any difference in maintenance of flat and sloping roofs.

Mr. Tifft: We discussed that and we suggested that the sloping roof be limited to 5'12", local conditions covering that.

Mr. Angelo: I recommend that a heavier shingle or asbestos shingle be used throughout the projects.

Mr. Kervick: I think sloping roofs have some public relations value that will make up the \$150 higher cost per dwelling.

Mr. Lumley: Our experience over three years on two projects with gyp lath is that it is possible to keep cracks out of the walls

but impossible to keep cracks out of the ceilings. Is the cheapness of the lath enough compensation for the maintenance of the ceilings?

Mr. Vogdes: We find it is the structural defect more than anything else. Normally speaking, if the structures are all right, we haven't had much trouble with gyp lath.

Mr. Skinner: I think if you use perforated gypsum lath according to the directions of the manufacturers, you won't have much trouble.

Mr. Beuscher: I agree with Mr. Lumley that it is true that gyp lath is fine on the walls but no good on the ceilings. Everytime you put it on the ceilings it will crack.