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# REPORT TO THE CONGRESS

## Improved Guidance Needed For Relocating Railroad Facilities At Water Resources Projects

B-114885

Corps of Engineers (Civil Functions)  
Department of the Army

BY THE COMPTROLLER GENERAL  
OF THE UNITED STATES

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COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON, D.C. 20548

B- 114885

To the President of the Senate and the  
Speaker of the House of Representatives

This is our report demonstrating that improved guidance is needed for relocating railroad facilities at water resources projects being constructed by the Corps of Engineers. This review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Bureau of the Budget; the Secretary of Defense; and the Secretary of the Army.

A handwritten signature in cursive script that reads "James B. Stacks".

Comptroller General  
of the United States

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ABBREVIATIONS

AREA	American Railway Engineering Association
GAO	General Accounting Office
GN	Great Northern Railway Company <i>DL606273</i>
OCE	Office of the Chief of Engineers
SPS	Spokane, Portland and Seattle Railway Company <i>74</i>
UP	Union Pacific Railroad Company <i>75</i>

D I G E S T

WHY THE REVIEW WAS MADE

The Secretary of the Army is authorized by law to acquire title to land needed for the construction of flood control dam and reservoir projects and to relocate railroads within project areas.

The General Accounting Office (GAO) reviewed railroad relocations made by the Corps of Engineers under the Secretary's authority because of the substantial funds being spent by the Corps and because of the concern of House and Senate Appropriations Committees that the relocations were not being made as reasonably and economically as possible.

FINDINGS AND CONCLUSIONS

The Corps needs to improve guidance for its district officials by (1) developing guidelines for determining the extent of the Government's obligation to relocate railroad facilities and (2) strengthening its procedures for negotiating railroad relocation agreements. (See p. 8.)

At three water resources projects, the cost of relocations was increased by about \$3.9 million because the Corps apparently provided the railroad with certain facilities better than those necessary to meet the Government's obligation to provide facilities equivalent to the ones replaced. (See p. 8.)

For two of these projects, the Corps did not consider adequately the need for participation in the cost of service roads which were planned but not constructed by the railroad at the time of the relocation negotiations. (See p. 35.) As a result:

- The railroad constructed service roads (which were never used) on the old railroad lines solely for the purpose of justifying the Government's providing service roads on the relocated lines.
- Delays were experienced in the construction of water resources projects because the railroad did not sign relocation agreements until it had constructed improvements on its lines which were to be replaced.

--The Government ultimately incurred the entire cost of constructing the service roads on the relocated lines.

#### RECOMMENDATIONS OR SUGGESTIONS

GAO proposed that the Secretary of the Army direct the Chief of Engineers to provide assistance to district officials responsible for handling railroad relocations, by issuing guidelines for the relocation of existing facilities. The guidelines should require that, before selecting a firm negotiating position and informing the railroads of that position, Corps district offices should

- obtain and evaluate documented evidence from the railroads supporting their contention that Federal participation in the improvements is justified as a result of the relocation,
- prepare proposals for negotiating settlements with the railroads, and
- submit the proposals for comment and approval by the Office of the Chief of Engineers.

The Chief of Engineers should also issue guidelines requiring that Federal participation in the cost of facilities planned but not constructed (1) be based upon documented evidence that planned improvements on the railroad lines would be adversely affected by their relocation and (2) be limited to the extent that the cost of the planned improvements is increased by the relocations. (See p. 42.)

The Corps should also obtain congressional consent whenever it believes that the best interest of the Government can be served by participating in the increased cost of planned railroad improvements brought about by a relocation. (See p. 42.)

#### AGENCY ACTIONS AND UNRESOLVED ISSUES

The Department of the Army agreed that there was a need for guidance related to the relocation of existing facilities and issued guidelines to provide that full documentation be maintained for all items of cost considered during preparation of cost estimates and negotiations for relocations. Additional guidelines were issued on April 27, 1970, to require that the District Engineer evaluate railroad requests for improvements necessitated solely by relocations and submit his proposals, based on the evaluations, to the Office of the Chief of Engineers prior to establishing a negotiation position with the railroads. (See p. 31.)

The Department disagreed with GAO's proposal related to guidance for the disposition of railroad requests for Federal participation in the cost of improvements planned but not yet constructed. (See p. 40.)

GAO continues to believe that the procedures it proposed regarding the amount of Federal participation in improvements planned but not constructed should be implemented and is so recommending.

MATTERS FOR CONSIDERATION BY THE CONGRESS

This report is being submitted to the Congress because of expressed congressional interest in the cost of railroad relocations at Federal water resources projects.

## CHAPTER 1

### INTRODUCTION

The General Accounting Office has reviewed the policies, procedures, and practices of the Corps of Engineers (Civil Functions), Department of the Army, for the relocation of railroad facilities necessitated by the construction of Federal water resources projects. We reviewed the relocation of railroad facilities for the John Day Lock and Dam; the Lower Monumental Lock, Dam and Reservoir; and the Libby Dam and Reservoir and directed our efforts to those matters which appeared to be in need of attention. The scope of our review is set forth on page 43.

The Corps of Engineers constructs, operates, and maintains water resources projects authorized by the Congress for flood control, navigation, and hydroelectric energy. The Flood Control Act of June 28, 1938 (33 U.S.C. 701-c-1), authorizes the Secretary of the Army to acquire, in the name of the United States, title to all lands necessary for any authorized flood control dam and reservoir project. This act also authorizes the Secretary to relocate railways as part of the land and property acquisition aspect of developing projects.

When railroad facilities must be taken to provide a right-of-way for a project and there is a continuing need for the services provided by the facilities, Corps' policy, generally, is to acquire the real estate by entering into an agreement with the railroad to relocate the facilities. Corps' regulations provide that all negotiations for an agreement be conducted with full appreciation and judicious use of the fact that the Government can acquire the facilities through condemnation proceedings if all reasonable efforts to negotiate are unsuccessful.

The liability of the Government arising from the acquisition of railroad facilities stems from the Fifth Amendment to the Constitution of the United States which states that just compensation will be paid for the taking of private property for public use. The Supreme Court has defined just compensation as the placing of the property

owner in as good a position pecuniarily as he would have occupied if his property had not been taken.

Corps' policies provide that, when a relocation of facilities is necessary, the actual work of relocating the facilities may be accomplished by one of three methods or a combination thereof. The usual method is for the owner to relocate his facilities and convey to the Government his existing easements or rights-of-way and for the Government, in consideration thereof, to compensate the owner for his relocation costs. The relocation of facilities may also be accomplished by the Government or by agreement between the Government and a party other than the owner of the facilities to be relocated. A combination of these methods was used at the projects included in our review.

Corps' regulations state that the liability of the Federal Government for the acquisition of facilities owned by the railroads is the cost of providing replacements when they are in fact necessary. Conversely, the regulations state that, when there is no necessity for replacing facilities or portions thereof, the Federal Government is required to pay only nominal consideration or salvage value, if any.

Corps' regulations state further that replacement facilities will be provided which will as nearly as practicable serve the owner in the same manner and reasonably as well as do the existing facilities. The regulations state that relocated railroad facilities will be built to the same load limitations and equivalent engineering criteria as those of the existing facilities.

The term "betterment" is generally used by the Corps to describe the greater serviceability, or less susceptibility to damages, of the replacement facilities that are provided at additional cost and are not necessitated solely by the relocation. The costs of betterments identified in Corps' relocation agreements are required to be borne by the owner of the facilities being relocated. Representatives of the Office of the Chief of Engineers (OCE) advised us that the term "serviceability" as used in defining betterments includes such factors as (1) useful life,

(2) effectiveness, (3) maintenance costs, and (4) operating costs.

It is important to note that Corps' definition distinguishes betterments from other types of improvements necessitated solely by the relocation of a facility. This distinction may be difficult to make when there are substantial changes in the physical layout of, or operational criteria required for, relocated railroad lines.

By January 1970 the Corps' estimated cost of the three water resources projects included in our review amounted to about \$1.1 billion, of which about \$255 million was for the relocation of railroad facilities, as shown below.

Railroad Relocation Costs

<u>Project</u>	<u>Initial estimate</u>	Estimate	Estimated
	<u>Date</u>	at	total proj-
	<u>Amount</u>	January	ect costs
		<u>1970</u>	at January
			<u>1970</u>
----- (000 omitted) -----			
John Day	July 1958	\$ 65,588	\$108,766
Lower Monumental	" 1959	39,753	42,860
Libby	Jan. 1963	<u>106,000</u>	<u>102,985</u>
		<u>\$211,341</u>	<u>\$254,611<sup>a</sup></u>
			<u>\$1,138,062</u>

<sup>a</sup>Initial estimate as adjusted for Corps' estimates of price level changes in the periods between the dates of the estimates, plus refinements due to more detailed engineering.

The John Day project was 93 percent complete as of January 1970 and is scheduled for completion in June 1973. The project is located on the Columbia River about 100 miles east of Portland, Oregon, and 2.3 miles west of its confluence with the John Day River. The Corps relocated in the John Day reservoir area (1) about 80 miles of track for the Spokane, Portland and Seattle (SPS) Railway along the Washington shore of the Columbia River and (2) about 62

miles of track for the Union Pacific (UP) Railroad Company along the Oregon shore of the river.

The Lower Monumental Dam project was 97 percent complete as of January 1970 and was scheduled for completion in June 1972. The project is located on the Snake River in Washington, approximately 42 miles upstream from its confluence with the Columbia River. The Corps' relocation of about 32 miles of track in the reservoir area was about 97 percent complete as of January 1970.

The Libby Dam, located on the Kootenai River about 17 miles upstream from Libby, Montana, and 3.5 miles above the river's confluence with the Fisher River, is scheduled for completion in July 1976. The Corps' relocation of about 60 miles of track for the Great Northern (GN) Railway Company was about 72 percent complete as of January 1970.

At the three projects, the changes in the routes of the railroad lines necessitated a physical layout of the relocated lines that, in many respects, differed substantially from the physical layout of the old lines. For example, at two of the projects, the old lines were in relatively open country, whereas the relocated lines were constructed in mountainous areas of higher elevation.

The principal management officials of the Department of Defense and the Department of the Army responsible for the administration of the activities discussed in this report are listed in appendix V.

## CHAPTER 2

### GUIDANCE NEEDED TO

#### LIMIT FEDERAL FINANCIAL PARTICIPATION

#### IN REPLACING RAILROAD FACILITIES OF IMPROVED DESIGN

We believe that there is a need for the Corps to provide improved guidance to its district offices by (1) developing improved guidelines for determining the extent of the Government's obligation to relocate railroad facilities and (2) strengthening its procedures for negotiating railroad relocation agreements. Our review of selected railroad facilities relocated at three water resources projects showed that the Corps provided the railroads with some replacement facilities which were better than those needed to meet the Government's obligation to provide facilities equivalent to the ones replaced.

We noted examples during our review where it appeared that the Corps provided facilities to the railroads in excess of the Government's obligation at an increased cost to the Government of about \$3.9 million, as shown in the following table.

#### Estimated Added Cost of Improvements

	<u>John Day</u>		<u>Lower</u> <u>Monu-</u>	<u>Libby</u>	
	<u>UP</u>	<u>SPS</u>	<u>mental</u> <u>UP</u>	<u>GN</u>	<u>Total</u>
	----- (000 omitted) -----				
Improved facilities:					
Station facilities	\$105	\$167	\$410	\$ -	\$ 682
Secondary track	253	11	351	-	615
Alternate routing	-	-	-	2,600	2,600
Total estimated additional cost of improvements	<u>\$358</u>	<u>\$178</u>	<u>\$761</u>	<u>\$2,600</u>	<u>\$3,897</u>

These improvements are discussed in more detail in the following sections of this report.

## STATION FACILITIES

We believe that the Corps' Seattle and Walla Walla District offices, in determining the Government's obligation to replace station facilities of UP and SPS, did not fully consider, although required by the Corps' regulations to do so, whether the use being made of the facilities evidenced that their replacement was necessary and, in the case of any unneeded facilities, did not take into account that the Government's obligation was limited to the nominal consideration or salvage value. In two of the three projects reviewed, we found that, in several instances, the Corps provided station facilities that were larger, or of a better type of construction, than those needed to meet the Government's obligation to provide equivalent replacement facilities. As a result, the cost to the Government was increased by about \$682,000.

Station facilities are the various buildings owned and used by the railroads in connection with the operation of their lines. The buildings usually consist of individual residences, bunkhouses, depots, and other structures grouped at various locations along the line. The improved station facilities identified during our review are discussed below.

### John Day project

We found that the Corps provided UP and SPS with station facilities--residences and bunkhouses--that were generally larger and of better quality than the replaced facilities. We estimated that the increased cost to the Government amounted to about \$272,000, as shown in the following table.

<u>Type of facility</u>	North shore relocation (SPS)	South shore relocation (UP)	<u>Total</u>
Residences	\$131,000	\$ 31,000	\$162,000
Bunkhouses	18,000	74,000	92,000
Carports and trailer slabs	<u>18,000</u>	<u>-</u>	<u>18,000</u>
Total	<u>\$167,000<sup>a</sup></u>	<u>\$105,000<sup>a</sup></u>	<u>\$272,000</u>

<sup>a</sup>Details of our calculation are shown in appendix IV.

The design memorandums presenting the results of studies made by the Corps for relocating the railroads did not state the specific criteria to be followed in providing replacement of station facilities. However, in response to our inquiries, the Chief of the Engineering Division at Corps' Walla Walla District informed us that the only way to place the railroads in an "in-kind" or "equivalent-utility" operational status was to replace their old buildings or combine the old space and reapportion it to the number of buildings required to maintain the new lines.

Apparently, the district chose this criterion through negotiations with the railroads because the above-cited letter also stated:

"The railroad companies were not receptive to piece-by-piece replacement of each necessary facility to a degree of serviceability comparable to that of the existing facilities, and asked consideration of an alternate approach. They proposed the adoption of an up-to-date approach of lengthening the distances between section facilities, thus eliminating some facility areas and reducing the total number of required structures. This included enlarging of the buildings to modern railroad standards for accommodating their personnel, equipment, and clientele. Since the companies were more receptive to the lesser number of updated facility areas, it was determined in the best interest of the Government to accept their proposal and obtain early

agreements on these items. The total number of new section facility areas constructed and paid for by the Government were three less than on the old S. P. & S. Railway and one less than on the old Union Pacific Railroad. Improvements upon and departure from the existing details were agreed upon. The basic criterion was continued serviceability of the new line. Some increase in serviceability was obtained by the Railroad; however, this is not considered significant in terms of the overall benefit to the Government in obtaining an agreement that would permit meeting contract schedules and the accomplishment of the combined railroad and highway grading."

We believe that the district's approach resulted in providing larger facilities constructed to better standards than those necessary to place the railroads in an equivalent operational position.

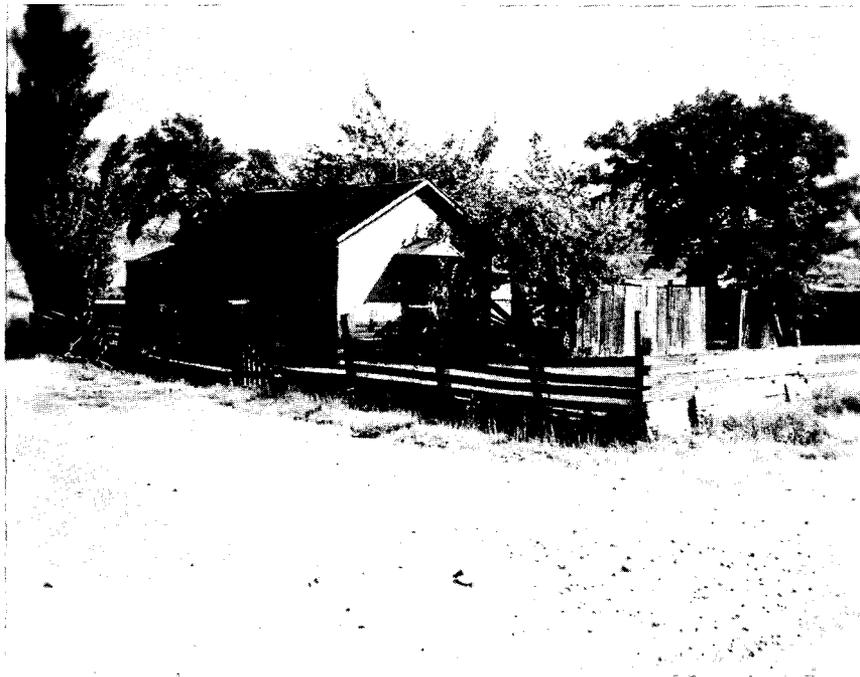
This approach eliminated the need to ascertain which facilities on the old railroad lines had to be provided on the relocated railroad lines to place the railroads in an equivalent operational status and to delineate those facilities requested by the railroads that were beyond the Government's obligation to provide replacement facilities.

North shore relocations--SPS's nine residences on the replaced north shore railroad line were wood frame structures, with an average floor space of 911 square feet, that had been constructed about the turn of the century. The Corps replaced the residences on the relocated railroad line with nine prefabricated metal buildings of modern design, having an average floor space of 1,232 square feet--321 square feet more per residence than the average floor space of the replaced residences. The estimated cost of the residences was about \$30,000 each. Pictures of a new residence and a replaced residence are shown on the next page.

We estimated that Corps' providing SPS with the prefabricated metal buildings rather than with wood-frame buildings and with more floor space than that of the replaced buildings resulted in additional costs to the Government of about \$131,000, of which about \$61,000 was



**NEW RESIDENCE PROVIDED  
BY THE CORPS AT ROOSEVELT, WASH.**



**EXISTING RESIDENCE AT ROOSEVELT, WASH.**

applicable to the improved type of building and \$70,000 to the additional floor space.

The Corps also provided a carport at each of the relocated residences, as illustrated in the picture on the preceding page, and trailer slabs at three of the relocated section stations even though such facilities had not existed on the old railroad line. We estimated that the added costs to the Government of providing these facilities amounted to about \$18,000--about \$11,000 for the carports and about \$7,000 for the trailer slabs.

The Corps provided three prefabricated metal structures of modern design, having a total floor space of 3,008 square feet--241 square feet in excess of the floor space of the replaced bunkhouses--to replace SPS's five bunkhouses on the old railroad line--four wood structures and one metal structure--with a total floor space of 2,767 square feet. Pictures of a new bunkhouse and a replaced bunkhouse are shown on the next page.

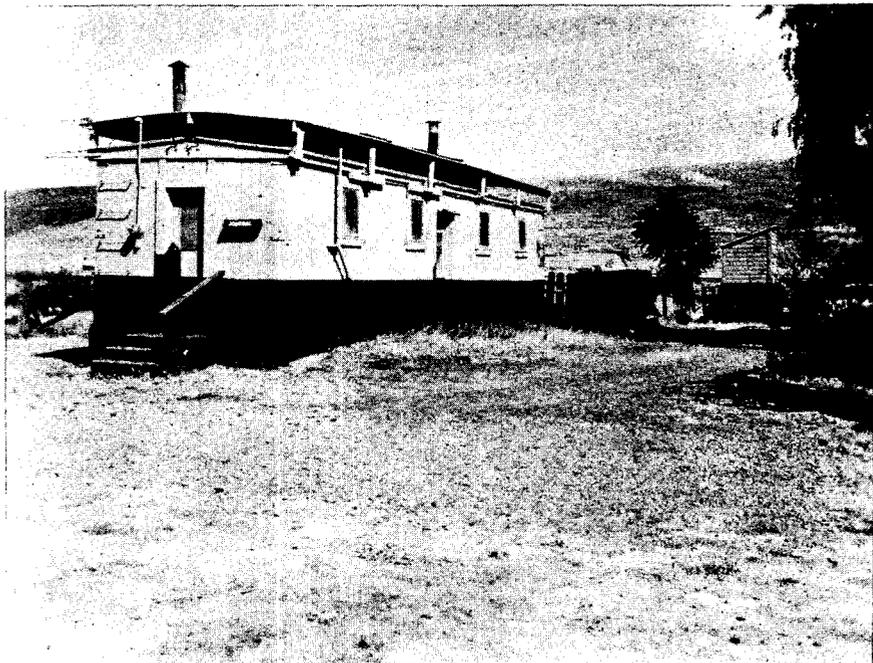
We estimated that the added costs to the Government of providing SPS with the prefabricated metal structures rather than the wood-frame, aluminum-siding type of structure provided to UP on the south shore amounted to about \$18,000.

South shore relocation--We found that the relocated UP station facilities on the south shore were larger and were built to higher standards than those of the replaced buildings. Although the old facilities were abandoned at the time of our review, an internal Corps memorandum described the condition of these buildings as follows:

"The general condition of all existing structures is poor. No access under the structure was provided, but exterior cases of dry rot was evident. It is assumed that dry rot is prevalent under all structures due to construction without a crawl space and no ventilation. Floor joists are of rough 2 x 6 material. Fifty percent of the bunkhouses are a small one room prefabricated world war II structure of no value for relocations due to sanitary code requirements."



**NEW BUNKHOUSE PROVIDED  
BY THE CORPS AT ROOSEVELT, WASH.**



**EXISTING BUNKHOUSE AT ROOSEVELT, WASH.**

The new residences and bunkhouses were wood-frame structures with aluminum siding, constructed to more modern design standards and considerably larger than the old structures although fewer in number. The eight old residences had an average floor space of about 861 square feet. The seven relocated residences have an average floor space of 1,120 square feet. We estimated that the cost of the additional 259 square feet per residence, was about \$4,400, or about \$31,000 for all residences.

The lengthening of distances between station facilities on the relocated line resulted in reducing the number of residences required from eight to seven. In our opinion, under Corps' regulations, UP was entitled to seven residences with an average floor space of 861 square feet on the relocated line. Accordingly, our calculations of increased cost are based on limiting the Government's replacement obligation to seven residences with an average of 861 square feet of floor space and, in accordance with Corps' regulations, on allowing the nominal or salvage value for the residence that did not require replacement.

We also found that the Corps provided 10 bunkhouses having a total floor space of 5,760 square feet to replace seven old bunkhouses having a total floor space of 1,512 square feet--an additional 4,248 square feet of space. We estimated that the cost of the additional space was about \$74,000.

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We believe that, at both the north shore and the south shore relocations, the Corps' Walla Walla District did not give adequate consideration to the size and utilization of the buildings involved as the basis for establishing the Government's replacement obligation. Improved facilities were provided to UP and SPS in these relocations by combining the total floor space of all types of existing facilities on the old line and allocating this space to the various types of new structures rather than determining the Government's obligation to replace each type of facility on the basis of the need for providing operational equivalence.

In our view, the utilization of each type of facility to be replaced must be fully considered if substitute facilities which serve in the same manner and reasonably as well as existing facilities are to be provided. Such considerations are also required by Corps' regulations.

Lower Monumental project

We found that Corps' Seattle District provided UP with residences, bunkhouses, a hotel, and miscellaneous maintenance and storage buildings that were generally larger and of better quality materials than those necessary to meet the Government's obligation to place the railroad in an equivalent operating position. The increased cost to the Government that we were able to measure totaled about \$410,000, as shown in the following table.

<u>Type of facility</u>	<u>Increased cost</u>
Residences	\$168,000
Bunkhouses	183,000
Hotel	37,000
Maintenance and storage sheds	<u>22,000</u>
	<u>\$410,000<sup>a</sup></u>

<sup>a</sup>Details of our calculations are shown in appendix IV.

In regard to replacement of station facilities, the Chief of the Engineering Division at the Corps' Seattle District office advised us that the Division is required to provide a substitute facility for the railroad that is functionally and operationally equal to the existing facility. He advised us also that the Government is required to replace only those buildings that are necessary for the operation of the railroad but that, if more buildings are needed or additional space in individual buildings is required to fulfill the operational requirements of the railroad, the Government is legally obligated to construct the buildings and provide the additional space at no cost to the railroad.

We are in agreement with the Chief of the Engineering Division that the Government is obligated to provide facilities necessary for the operation of a relocated railroad line which are equivalent to those of the old line. We found, however, that the Corps not only provided UP with facilities--residences and bunkhouses--on the relocated railroad line, in replacement of facilities that had not been used in connection with the operation of the old railroad line, but also provided facilities that were larger and of a better type of construction than those on the old railroad line. We found no evidence that such facilities were required to provide operational equivalence, and in our opinion they constitute improvements which were not necessitated solely by the relocation of the railroad line.

The Corps-prepared inventory records, dated November 9, 1964, of UP's station facilities on the old railroad line show that eight housing facilities had not been occupied. Even though these facilities had not been occupied, UP insisted that the Corps furnish housing on the relocated line in accordance with its agreement with the labor union to provide housing for all employees. The records indicated that UP's housing facilities that had not been occupied were not suitable for occupancy and that some of UP's employees had refused to live in them. We also found that the UP employees that did not live in UP housing facilities either owned their own houses in Ayer, Washington, or lived in other nearby towns.

Corps' Project Engineer at the Lower Monumental project, in a memorandum dated August 12, 1964, requested an opinion from Corps' Seattle District Counsel as to whether or not the Government was obligated to furnish UP with housing in accordance with its union agreement. In his request, he pointed out that UP was of the opinion that the Government should provide the housing even though all of UP's housing facilities were not occupied at that time.

In reply to this request, Corps' Seattle District Counsel stated on August 17, 1964, that the Government's obligation to furnish houses under a relocation agreement could not be based on a railroad's agreement with a union. He stated also that the Government's obligation is based on the existing facilities that must be replaced and that this

obligation is further limited to the railroad's compensable interest in the facilities to be replaced.

The District Counsel stated that, as to the unused houses that had fallen into disrepair, UP may have had a reimbursable interest for which it should receive the market value but that the lack of use indicated that there was no need to replace the unused houses and that construction of new houses in place of "dilapidated run-down shacks" would constitute a betterment which should be constructed at UP's expense.

This matter was discussed during a meeting between Corps' Seattle District representatives and Corps' North Pacific Division representatives on December 17, 1964. According to a memorandum of their meeting, the representatives:

"\*\*\* discussed the facilities the Union Pacific Railroad is requesting as replacement for its facilities at Ayer, Ruxby and Riparia. Although detailed agreement was not reached, there was a general consensus that the Railroad's request is not inconsistent with the requirements of Para. 53-106 and 53-205 of ER 1180-1-1. More specifically, we believed additional justification would have to come from the Railroad, but we also believed that what the Railroad was requesting was a reasonable substitute facility for what they had. Thus, the evidently more costly construction was not to be considered a prima facie evidence that a betterment would result."

District officials held subsequent meetings with UP, and correspondence was exchanged in an effort to obtain satisfactory justification for UP's requests, in accordance with the guidance provided at the December 17, 1964, meeting. On December 28, 1964, the Chief of the Engineering Division at Corps' Seattle District wrote to UP requesting additional data in support of its requirement for 21 residences and 18 bunkhouses. He asked:

"What is your present work force which must be housed at New Ayer under your present labor

agreements, and how will these fit into the dwellings and bunkhouses now requested?"

In a letter dated January 25, 1965, UP's Northwestern District Engineer explained how the residences and bunkhouses would be used by the various UP departments and stated that the number requested was the minimum required at New Ayer to provide housing for all personnel who would be working in that terminal. Corps' officials advised us that they were satisfied with the justification presented in that letter.

We found that the Corps provided one more residence and 12 more bunkhouses than were in use on the old railroad line and that the new residences and bunkhouses were considerably larger than the replaced facilities. The following table compares the number and size of the old residences and bunkhouses with those of the relocated facilities.

	<u>Number</u>	<u>Average square feet per building</u>	<u>Total square feet</u>
Residences:			
Replaced line	20 <sup>a</sup>	766	15,320
Relocated line	<u>21</u>	<u>1,120</u>	<u>23,520</u>
Increase	<u>1</u>	<u>354</u>	<u>8,200</u>
Bunkhouses:			
Replaced line	6 <sup>a</sup>	314	1,882
Relocated line	<u>18</u>	<u>576</u>	<u>10,368</u>
Increase	<u>12</u>	<u>262</u>	<u>8,486</u>

<sup>a</sup>Excludes unoccupied buildings.

We estimated that the cost to the Government of providing more buildings than necessary and additional floor space amounted to about \$351,000--\$168,000 for the residences and \$183,000 for the bunkhouses.

UP maintained a hotel at Ayer in addition to the residential facilities on the old railroad line. The hotel was a two-story structure containing 10,004 square feet of floor space. On the relocated line, the Corps provided UP with a new hotel containing 11,616 square feet of floor space--1,612 square feet more than in the old hotel. We estimated that the cost to the Government of providing the additional 1,612 square feet of floor space amounted to about \$37,000.

We also noted that the Corps provided more miscellaneous maintenance buildings and storage sheds on the relocated railroad line than were on the old railroad line. The facilities included tool houses, hose cart houses, and a sand bin and drying facility. We estimated that the cost to the Government of providing these additional facilities amounted to about \$22,000.

In our opinion, the effect of the District's negotiations was to provide station facilities requested by UP without regard to the type of materials used, size of facilities, or use made of the facilities. In our view, these factors must be considered in determining the extent of the Government's obligation.

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The Department of the Army, in commenting on our findings relative to station facilities (see app. I) advised us that the Corps' District Engineer had applied current building standards and space criteria because of UP's obligation under its labor union agreement and because of revisions in UP's operational program. We are of the opinion that the obligation of the Government to furnish living facilities under a relocation agreement cannot be based on the railway's agreement with a union but must be based on the existing facilities--giving due consideration to type of construction, size, and utilization--which must be replaced to provide the railroad with operational equivalence. However, the new dwellings and bunkhouses provided by the Corps as replacements for unoccupied ones on the old railroad line and the larger and better constructed facilities provided were not, in our opinion, necessary to obtain operational equivalence.

## SECONDARY TRACK

We believe that, in two of the three projects reviewed, Corps' Seattle and Walla Walla District offices provided the railroads with more secondary track of greater serviceability than was needed to meet the Government's obligation of placing the railroad in an equivalent operating position. Secondary track is a term generally used to denote all railroad trackage except the main line and branch track, and it usually consists of passing tracks, siding tracks, and spur tracks. On the basis of our review, giving due consideration to the existing trackage and the facilities served, the number and location of the facilities relocated, and new trackage required for operational equivalence, we believe that the increased cost to the Government of providing the additional secondary trackage amounted to about \$615,000--about \$264,000 at the John Day project and about \$351,000 at the Lower Monumental project.

### John Day project

We found that, at certain locations at this project, Corps provided SPS and UP with about 11,953 more feet of siding and spur track on the relocated lines than they had on the old lines. We believe that this additional secondary trackage provided the railroads with relocated facilities at each location, which had greater serviceability than those needed to meet the Government's replacement obligation.

For example, Corps provided UP with 1,600-foot sidings at both Goff and Castle on the relocated line at an estimated cost of \$70,000 although UP did not have any sidings or spurs at these two locations on the old line. In addition, documentation available for our review showed that Corps provided UP on the relocated line at Boardman with a 510-foot spur track, which we estimated to cost about \$11,000, as a substitute for certain facilities that were not relocated.

In another instance, the documentation showed that Corps provided SPS with a 467-foot spur track, which we estimated to cost about \$11,000, on the relocated railroad line at McCredie, even though a similar spur track had not

existed on the old railroad line. The design memorandum pertaining to the relocation of the railroad line stated that, although it might appear that the additional trackage at McCredie was a betterment, this position would have been difficult to defend when comparing the total length of all spurs and sidings on the old line with those provided on the relocated line. We believe that the Government's obligation for replacing secondary trackage should be determined on a case-by-case basis.

In view of Corps' regulations which provide that only those facilities be relocated that are in fact necessary and that nominal consideration or salvage value be paid for others, we believe that the Government was not obligated to provide the secondary trackage at the above locations.

In addition to the four locations discussed above where Corps provided 4,177 feet of secondary trackage on the relocated line where none had existed on the old line, there were five locations on the relocated UP line where the Corps provided 7,776 feet more secondary trackage--estimated to cost about \$172,000--than had existed on the replaced line. We could not find any documentation in Corps' files to justify that the additional trackage was needed to meet the Government's obligation of placing the railroads in an equivalent operating position.

#### Lower Monumental project

We found that UP, by centralizing certain of its operations at the New Ayer complex on the relocated railroad line, was able to achieve an operational status equivalent to that on the old railroad line with about 14,744 less feet of siding and spur track than had existed on the old railroad line. Corps, however, replaced the track by providing additional lengths of passing track at New Ayer and Matthews and additional lengths of siding track at Matthews and Magallon at a cost to the Government of about \$351,000. Since the railroad had an equivalent operating facility, we believe that, on the basis of Corps' regulations, the Government had no obligation to replace the 14,744 feet of track.

Corps' Seattle District office made no distinction between passing tracks and spur and siding tracks. However, we were informed by a Corps official that Corps' Walla Walla District office, in determining the Government's replacement obligation to UP at the John Day project, considered passing track separately and classified such track provided on the relocated railroad line in excess of that on the replaced railroad line as a betterment. It therefore charged UP for the cost of the excess trackage.

In discussing the obligation of the Government to provide secondary tracks on relocated lines, an official of Corps' Seattle District pointed out that the total length of secondary trackage provided at Government expense did not exceed that on the old line. He advised us that the Seattle District found no basis for making a distinction between passing track and other types of secondary track.

We believe that such a distinction is necessary because the Government's obligation to provide passing track should be limited to the length of such track on the old railroad line, while the Government's obligation to provide spur and siding track is dependent on the location of the facilities to be served by such track.

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The Department of the Army, in commenting on our findings concerning secondary track (see app. I), agreed that more careful analysis and documentation are needed for future relocations of secondary track facilities. The Department stated, however, that the classification of passing tracks as separate from sidings and spurs sets up an artificial distinction that is not valid and that, if all secondary track is considered as a whole, the replacement appears reasonable. The Department stated further that car storage may be increased on the relocated line as business requirements may be greater even though the number of facilities may be reduced.

In our opinion, passing tracks do not serve a railroad in the same manner as siding and spur tracks. Passing tracks, as the name implies, are used to allow one train to pass another and they must, as a general rule, be kept free of stationary cars. In contrast, siding and spur tracks are used to serve commercial facilities and for switching operations and car storage, and they are generally unsuited for passing operations. Accordingly, we believe that passing tracks must be classified as different from siding or spur tracks in determining the contribution of each to the railroad's operation. We believe that such a determination must be made so that proper consideration may be given to Corps' regulations which require that (1) re-located facilities be provided that will as nearly as practicable serve a railroad in the same manner as did the re-placed facilities and (2) only necessary facilities be re-located.

In our opinion, the location of facilities on the re-located line is important in determining the amount of secondary trackage needed for the relocation area. In addition, increased business generated by the relocation of rail facilities to a new area would not, in our opinion, provide a basis under Corps' regulations for the Government to construct siding and spur tracks to serve such facilities.

## ALTERNATE ROUTING

At the Libby Dam project, the relocated railroad line of the Great Northern Railway (GN) was connected with its existing main line at Stryker. (See app. III for a map.) On the basis of our review of existing documentation, we believe that Corps' Seattle District office did not give adequate consideration to connecting the relocated line with GN's main line at Trego. The connection at Stryker required the construction of a relocated railroad line that was 3.7 miles longer, and at a cost estimated by the district office of about \$2.6 million more, than if the connection had been made at Trego.

In 1961 GN made available to Corps' Seattle District a route study that had been performed by an independent engineering firm. The study showed that a connection of the relocated line with the main line at Trego was considered feasible from a construction standpoint. The study indicated, however, that the Trego route would have a greater rise and fall than the Stryker route, an adverse grade between Trego and Stryker, and more curvature and a longer operating distance than the Stryker route. The Corps considered a connection of the relocated line with the main line at Trego in June 1961 as indicated by a proposal for a joint Corps-GN consideration of alternate connecting routes. On June 21, 1961, however, GN proposed that the relocated line be connected with its main line at Stryker to avoid the rise and fall that would be encountered if the connection were made at Trego.

On July 12, 1961, OCE officials advised officials of Corps' North Pacific Division and the Seattle District office that, with regard to route selection, a sizable increase in the rise and fall on a line due to a change in the line does not constitute an item for which capitalized maintenance costs may be allowed a railroad. Subsequent route studies of Corps' Seattle District resulted in the approval of the construction of the relocated railroad main line with a connection at Stryker.

In response to questions raised by the Army Audit Agency relative to the selection of the Stryker route, Corps' Seattle District, in a memorandum dated April 28, 1967,

justified the connection of the railroad at Stryker on the basis that (1) although the Stryker route imposed adverse physical features, the Trego route would impose even more adverse features and (2) the operation and maintenance expenses for the Stryker route would approximate those on the replaced railroad line and would be less than for the Trego route. The memorandum stated, in part, that:

"Since the planned connection at Stryker will not provide an equal substitute facility, a connection at Trego would provide an even lesser facility. However, an operation and maintenance cost analysis has been made of the relative merits of the three routes (Existing, Stryker-Jennings and Trego-Jennings). This study assumes that the lump sum payment to be made to the Railroad reimburses the Railroad for increased operation and maintenance costs for new elements (the tunnel) on either relocated route. The study showed that not considering the tunnel, the operations and maintenance costs for the Stryker-Jennings route closely balanced those on the existing line but that the costs for the relocated route through Trego exceeded those on the Stryker-Jennings line by \$55,000 per year. The Trego connection therefore constitutes an additional burden on the Railroad for a relocation which has never been acknowledged, by either the Railroad or the Corps personnel, to be an equivalent route to the line being replaced. The present planned relocation route imposes a higher summit (397'), a 7-mile tunnel ruling grade (1% vs. 0.7%) and a longer ruling grade than the existing line replaced. If the connection at Trego were proposed, this route would then add additional adverse grade, increase the rise and fall 107', add an additional summit to the operating line and increase the operating distance between Whitefish and Troy by 1.7 miles over the agreed-upon route."

Our review of the cost analysis referred to in the memorandum of Corps' Seattle District showed that the annual operating and maintenance expense for both the Trego and the Stryker routes included \$70,000 that represented "lost

revenue" at a location to be displaced by the Libby pool. We brought the lost revenue item to the attention of officials of Corps' North Pacific Division and Seattle District offices, who stated that they were unable to explain why it had been considered an operating and maintenance expense. Had this item not been included as an expense, the cost analysis would have indicated that GN's operation and maintenance expense would be less for a relocated line on the Stryker route or on the Trego route by about \$72,000 and \$17,000, respectively, than its costs on the old railroad line.

We noted that many of the facilities on the old railroad line had been constructed before 1930. We noted also that Corps' cost analysis in comparing GN's operating costs that would be incurred for a relocated railroad line on the Stryker route or on the Trego route with its operating costs on the old railroad line was not based on a consideration of the lower operating, maintenance, and equipment replacement costs that would accrue to GN from the use of new facilities. Had Corps' cost analysis given effect to these lower costs, it would have indicated that the benefits that would accrue to GN from a relocated railroad line on either the Stryker or the Trego route would be even greater than indicated by Corps' cost analysis as adjusted for the improper inclusion of the lost revenue as an element of operating expense.

In summary, we believe that Corps' Seattle District office, in view of the possible savings of about \$2.6 million, did not give adequate consideration to approving the connection of the relocated railroad to the main line at Trego rather than at Stryker.

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The Department of the Army in commenting (see app. I) on this matter indicated that, although the GN main line was constructed before 1930, it may not have deteriorated through age because it was constantly maintained. We noted that some components, such as station facilities on the old line that were constructed around 1930, were still in existence and in relatively poor condition.

The Department stated that:

"The decision to make the connection at Stryker was based on engineering judgment with the view of providing the railroad with as good an alignment and grade as was practicable. The record in the report shows that the relocated route imposes substantial operational problems with which the railroad was not burdened on the existing route. Although the new main line is shorter than the old main line, the total length of railroad to be maintained has actually been increased because of the branch line from Stryker to Eureka (formerly main line). Thus, it appears improbable that the operation and maintenance to be performed by the railroad would be less considering its total facility and the additional rise and fall of the longer, steeper grades."

Although the relocated route will have certain adverse operational features, both the Stryker and the Trego routes have favorable features, such as shorter operating distance and less curvature along the main line. Corps' operation and maintenance cost analysis considered the need to maintain both the main and the branch lines and the adverse operating factors mentioned above. This cost analysis, after being adjusted for the lost revenue, indicates that annual operation and maintenance costs on the Trego and the Stryker routes would be less than on the existing line.

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The Chief Engineer of GN, in commenting on our draft report (see app. II), questioned the validity of the costs of \$2.6 million that would have been avoided if the relocated railroad line had been connected with the main line at Trego instead of at Stryker. He stated that the Trego route was never formally designed to assimilate the actual conditions which would be encountered in construction. He stated also that the Trego route would have required the relocation of a county road, one or more grade separations, channel changes of Fortine Creek, and partial relocation of a power line and that the acquisition costs would have been higher than those on the Stryker route because of the associated severance damages.

We found, however, that most of the features referred to by the Chief Engineer as requiring relocation on the Trego route also had to be relocated on the Stryker route because the routes were close to each other. Also, our review showed that on the Stryker route two roads and a utility line will have to be relocated, which would not have been required if the Trego route had been selected because the relocated railroad line would be connected to the main line about 5.4 miles north of Stryker.

The GN Chief Engineer, in commenting on the \$70,000 lost revenue item in Corps' cost analysis of the operating and maintenance costs, stated that it was an element to be considered regardless of whether it was a proper element to be included in operating expenses. GN stated that it should have been considered in comparing the costs of a relocated line with those of an existing line.

The courts, in determining compensation to be paid for facilities taken in eminent domain proceedings involving public utilities, when there is no continuing need for the facilities, have based their determinations on the estimated loss of revenue due to the taking of facilities serviced by the utilities. (United States V. Brooklyn Union Gas Co. 168 F. 2d 391 (2d Cir. 1948)). The determination concerning the estimated loss of revenue, however, was made on the basis of all facilities serviced by the utilities and affected by the taking and not merely on one segment of the taking.

According to an engineering consultants' report prepared for the Corps, the estimated \$70,000 loss of revenue appears reasonable. The consultants stated, however, that they did not know what traffic might be developed on the relocated main line to offset this loss but that they understood that it might be substantial.

GN's Chief Engineer also advised us that the Trego route would not have been an acceptable alternative. He stated that the independent engineering study and GN's own appraisal revealed that the Trego route would require more severe grades, greater curvature, two summits, and an additional tunnel. He said that, even though the Stryker route had some similar adverse features in this regard, it clearly

offered a substitute more similar to the replaced route than the Trego route and that, therefore, regardless of cost, the Government was obligated to select the Stryker route rather than the Trego route. The Chief Engineer, in comparing the Stryker route with the replaced line, stated further:

"\*\*\* The relocated line has steeper grades, a higher summit, and a seven-mile tunnel. This line has twice the mileage at an elevation of 3200 feet or above as the old line. More snow will be encountered and for longer periods. The steeper grades will require more engine units. These factors will result in higher operational and maintenance costs. Because these factors were not considered new elements, the Corps in determining capitalized maintenance did not include these elements in the settlement amount. The serviceability on the relocated line will certainly be no greater than on the existing line."

He also indicated that there were various adverse factors on sections of the Trego route when compared with the Stryker route and on both the Stryker and Trego routes when compared with the old railroad line. However, Corps' analysis of operation and maintenance costs on the Stryker and Trego routes and on the old line was based on a consideration of the adverse factors and on certain favorable physical features, and it indicated that the operation and maintenance costs, exclusive of the lost revenue, would be less on both the Stryker and the Trego routes than on the old line.

## CONCLUSIONS

We found that, during negotiations of relocation agreements with the SPS, UP, and GN, the Corps' Seattle and Walla Walla Districts had not used, as the basis for limiting the Government's replacement obligation, the most economical alternatives for providing required equivalent replacement facilities. We believe that as a result the Corps provided some station facilities, secondary track, and main line track to the railroads in excess of the Government's obligation to provide equivalent replacement facilities.

Although Corps' policies and procedures relating to the relocation problems discussed in this chapter are basically sound, opportunities exist for the Office of the Chief of Engineers to reduce the cost of future Federal water resources projects. We suggested to the Corps that there was a need for improved guidance to Corps' district offices for implementing relocation policies and procedures pertaining to the negotiation of railroad relocation agreements to ensure that the Government's obligation to meet railroad demands for significantly improved replacement facilities would be properly considered and evaluated.

## AGENCY ACTION

Subsequent to commenting on our draft report, the Corps issued instructions consistent with our suggestion, which provided that full documentation be maintained for all items of cost considered in cost estimates and in negotiations for relocations. These items include betterments, maintenance roads, changes in building types, needed buildings or other structures, number and length of railroad sidings, and all costs needed in determining the most economical alignment.

The Corps issued additional instructions on April 27, 1970, requiring that, before selecting a negotiating position and informing the railroad, the District Engineer obtain and evaluate documented evidence from the railroads supporting their contention that any new features or betterments requested are necessitated solely as a result of the relocation. These instructions also require that, on the

basis of these evaluations, the District Engineer prepare proposals for negotiating settlements with the railroads and submit these proposals for approval by the Office of the Chief of Engineers.

We believe that these instructions, if appropriately implemented, should provide greater assurance that the Government's obligation to meet railroad demands for significantly improved replacement facilities will be properly considered and evaluated.

#### RAILROAD COMPANYS' COMMENTS AND OUR EVALUATION THEREOF

The SPS, UP, and GN, in addition to providing us with comments discussed in the preceding sections of this report, indicated generally that the relocation of a railroad must be considered as a whole in determining the replacement to be provided and that the changed operating conditions which increase operation and maintenance costs must be recognized. (See app. II.) In response to similar comments received from the Department of the Army, which are discussed in the preceding section, we have stated that operational equivalence is achieved by considering the actual operating purposes of the individual elements in the relocation.

In our review we considered only those improvements which we believed were not necessitated solely as a result of the relocation and did not evaluate those betterments and adverse conditions that were, in our opinion, unavoidable.

UP stated that savings had accrued to the Government because negotiators of the Corps and the railroad agreed upon less expensive standards than would have been justified in the relocation. UP stated that, as an example, it could have insisted upon the placement of riprap on the John Day project relocation in accordance with American Railway Engineering Association (AREA) standards but that, as a result of agreement on a lower standard, a saving of \$5 million to \$6 million was achieved by the Government. Riprap is stone randomly placed around a reservoir to prevent erosion or other damage due to wave action.

Although the riprap for the railroad relocation on the John Day project was designed to standards lower than the AREA standards in effect at the time of the negotiations, we question whether UP could have required that the riprap be constructed to those standards because the Corps is a recognized authority on riprap design. The AREA modified its standards as a result of Corps' studies, and the current AREA standards cite Corps' publications on several aspects of riprap design as the basis for the revised standards. In our opinion, the negotiations merely resulted in an agreement to provide the type of riprap that the Corps determined was needed to provide adequate protection.

Our discussions with a Corps official and our analysis of riprap design indicated that the riprap on the John Day railroad location was designed to higher standards than those required by current AREA riprap design specifications.

UP stated also that our report should acknowledge savings which the Government realized by the railroad's furnishing materials and services at cost, without the element of profit that would have been required by outside contractors.

As pointed out on page 5, Corps' policy provides that the actual relocation of facilities may be accomplished by the owner who is compensated for his costs by the Government. Our review did not include a determination as to whether UP's costs of materials and services were lower or higher than the costs would have been had the materials and services been provided by outside contractors. Therefore, we cannot express an opinion as to the savings that might have accrued to the Government as a result of UP's providing materials or services for its relocated railroad line.

The Chief Engineer of one railroad advised that he had not been contacted by anyone from our Office and that he had therefore concluded that the draft report as it related to his railroad was not factual. Although our review was directed primarily to the records and activities of the Corps and did not include a detailed examination of the records of the railroads involved, a copy of the draft report was submitted to the railroads for their review and comment. Since the matters presented in this report are

consistent with the information contained in the records of the Corps of Engineers and since the railroad did not provide specific information to the contrary, we have no basis for revising the information included in this report.

### CHAPTER 3

#### GUIDANCE NEEDED TO LIMIT FEDERAL PARTICIPATION

##### IN PLANNED RAILROAD IMPROVEMENTS

During the negotiations with the UP for the replacement of railroad facilities necessitated by the construction of the John Day and Lower Monumental projects, UP informed officials of Corps' Walla Walla and Seattle District offices that it had made significant investments in off-track maintenance equipment and that it was in the process of converting to off-track maintenance practices which required the construction of service roads adjacent to its main line.

UP requested officials of the two district offices to consider providing service roads for maintenance purposes along the entire length of two relocated main lines although such service roads had not existed on the old railroad line. The negotiation records for the relocation of both railroad lines indicated that UP might participate in the cost of constructing the service roads in the area of the relocated railroad lines.

Officials of both district offices informed UP that the Corps could not provide the service roads because such roads did not exist on the old railroad line. Negotiation records indicated that the districts' decisions were based upon a strict interpretation of Corps' policy of providing replacement facilities equivalent to those replaced. We found no evidence that the Corps had requested appropriate planning and financial data from UP so as to determine the validity of UP's intent to construct service roads and the amount of increased cost imposed by the relocation.

For both railroad line relocations, UP delayed signing relocation agreements until it had constructed sufficient service roads on its existing railroad lines to convince the Corps that it should provide service roads on the relocated lines. Therefore, as a result of Corps' reluctance to negotiate reasonable cost-sharing arrangements with UP, the Government ultimately incurred all the costs for

constructing service roads along the entire length of both relocated railroad lines. In addition, UP expended funds for the construction of service roads that could have been contributed toward the cost of constructing service roads on the relocated railroad lines.

In response to our inquiries about the cost of service roads for the John Day project, Corps' Walla Walla District office prepared an estimate which showed that the cost of the service road along the 57.12 miles of the relocated railroad line amounted to about \$988,000. After completion of our fieldwork, Corps' Seattle District office prepared a cost study which showed \$645,750 as the estimated cost of constructing service roads on the Lower Monumental project.

We could not find any information in Corps' files showing the exact cost incurred by UP to construct service roads on the old lines. However, we did find a memorandum prepared by the Corps which indicated that UP had set aside about \$200,000 for constructing service roads on the Lower Monumental project. Similar information was not available for the John Day project.

Following is a discussion of the circumstances surrounding Corps' decision to provide service roads on the relocated railroad lines on the John Day and Lower Monumental projects.

#### JOHN DAY PROJECT

On January 6, 1961, Corps' Walla Walla District furnished UP with a design memorandum covering, in detail, a portion of the line change. In response, UP's Chief Engineer advised the Walla Walla District Engineer by letter dated February 3, 1961, that the location of the relocated railroad line necessitated having a roadway adjacent to the track to provide access for maintenance trucks.

Corps' records of a meeting held on May 9, 1961, with UP officials indicated that UP's Northwestern District Engineer offered to participate in the cost of constructing the service roads on the relocated railroad line. By

letter dated May 16, 1961, Corps' Chief of the Engineering Division at the Walla Walla District office advised UP that the Corps could not agree to the construction of a service road on the relocated railroad line if such a road did not exist on the line at the time of entering into a relocation agreement with UP.

Corps' records showed that UP subsequently advised Corps' Walla Walla District representatives that it would begin constructing a service road on the old line in those areas where none existed and that it would not sign the relocation agreement until the service road was completed and its relocation provided for in the agreement.

By letter dated June 5, 1961, UP advised Corps' Walla Walla District Engineer that it had a service roadway adjacent to practically the entire length of the track to be relocated and that it was completing the construction of the roadway at a few other locations. UP stated that during recent years it had adopted the practice of maintaining its railroad lines with off-track equipment to effect operating economies and that it had made large expenditures to purchase off-track maintenance equipment. The letter further stated:

"The roadway was not completed through these areas at the time we initiated our off-track maintenance policy, as it was known at that time that this line was soon to be relocated in its entirety and was felt the cost of this relatively heavy construction was not justified for the short period of time it would be in use. In view of the position you have taken toward re-establishing this roadway on the relocated line, as outlined in your letter of May 16, we have moved one of our road construction crews into this area to complete the construction of this roadway through these areas where it was not previously established."

On July 21, 1961, Corps' Walla Walla District and UP representatives agreed that the Government would furnish UP a service road parallel to the relocated track. To provide for the service road, revisions were made in the design of the relocated railroad.

This agreement was approved by OCE officials in a meeting with Corps' division and district officials on August 1 and 2, 1961. On October 13, 1961, a supplemental design memorandum was issued which contained revised cross-section drawings showing that the railroad subgrade was to be widened a minimum of 10 feet to provide sufficient width for the service road. On June 18, 1962, the Corps and UP entered into the relocation agreement which provided for service roads to be included in the railroad facilities to be relocated at Government expense.

#### LOWER MONUMENTAL PROJECT

In March 1961 the Corps issued its design memorandum for the relocation of UP's main line on the Lower Monumental project. The Corps did not include plans for a service road in the design memorandum because at that time UP did not have a service road along its existing railroad line. However, in November 1962 the Corps issued a supplement to the design memorandum which included plans for an additional 10 feet of subgrade width on the relocated railroad to provide for a service road. The supplement stated that the service road was to be provided because UP had built a service road along its existing line subsequent to publication of the initial relocation design memorandum.

Corps' records showed that UP started constructing a service road along its existing railroad line primarily to obtain a service road on the relocated railroad line. For example, in a letter dated August 1, 1963, the Corps' Seattle District reported to its North Pacific Division that:

"Under the existing regulations involving relocations, the responsibility of the Government is limited to replacement in kind. Unless a service road is in existence at the time an agreement is consummated between the Government and the railroad, it cannot be included in the design for the relocation. To augment this policy the railroad has constructed a service road on a crash basis parallel to their existing tracks. This construction represents a useless and wasteful expenditure of funds as the service roads will soon be flooded when the pool is raised."

Corps' Seattle District reported further that UP had expended about 80 percent of the funds required to construct roads parallel to its tracks and that UP representatives had indicated that they would prefer to place the balance of these funds (about \$40,000) at the disposal of the Government for the construction of service roads along the relocated railroad line. The Seattle District recommended that UP's offer be accepted and advised that UP had agreed to suspend construction of the service road for about 30 days pending action on this recommendation.

In a letter dated October 10, 1963, Corps' Seattle District advised UP that the Corps had been authorized by the North Pacific Division to accept from UP a lump-sum payment based on the estimated cost of constructing the remainder of the service road along the existing line. The letter further stated:

"Although you do not have a service road along all of the existing trackage, we understand that a service road is required along the relocated line due to the restricted access occasioned by the reservoir, high fills, etc. As our records do not indicate that you have advised us formally of the requirements for a service road, we would appreciate receiving data from you establishing the need for a service road adjacent to the relocated lines."

In its reply dated October 23, 1963, UP advised the Corps that it was withholding preparation of any estimates of the service road work it had completed along its existing line until the relocation agreement was closer to consummation. To justify its request for a service road on the relocated line, UP stated that the need for the service road had been brought about by the fact that UP was now in a period of major transition from performing all track maintenance by manual labor to performing all of this work with mechanized equipment. UP stated also that it had purchased millions of dollars worth of off-track equipment and that, in order to realize the full advantage of the equipment, it was constructing off-track equipment roadways (service roads) adjacent to its tracks.

On March 25, 1965, Corps and UP entered into an agreement which provided for the relocation of railroad facilities, including service roads, at Government expense.

DEPARTMENT OF THE ARMY COMMENTS  
AND OUR EVALUATION THEREOF

In a draft of this report, we proposed to the Department of the Army that the Chief of Engineers provide additional guidance to Corps' district offices covering the disposition of railroad requests for Federal participation in the construction cost of facilities planned but not constructed at the time of negotiation for the relocation of the railroad lines. In the interest of ensuring proper implementation of this guidance, we proposed also that, when Federal participation was deemed appropriate, it (1) be based upon documented evidence that a planned improvement on the railroad lines would be adversely affected by their relocation and (2) be limited to the extent that the cost of the planned improvement is increased by the relocation.

The Department stated that it would be unable to follow this proposal without specific approval of the Congress through enactment of legislation or through appropriations for individual relocations. The Corps stated that it knew of no authority for assuming at project expense a portion of the cost attributable to adversity and that it deemed correct and in accordance with Corps policy the District Engineer's decision to exclude the cost of the nonexistent service roads.

The Corps considers that replacement in kind of existing facilities is the measure of the Government's obligation and that this does not allow the Corps to replace facilities which are not in existence at the time of negotiations. It has been Corps' experience that the Government's acquiescence to a particular demand, such as for the service roads, results in inclusion of identical or comparable items in all future contracts and appears to encourage additional similar demands in future negotiations.

In retrospect, the Corps stated that it had only two choices: first, to wait as it did and attempt to negotiate or, second, to place the railroad in condemnation in order

to contest the assumption of service road costs. The Corps stated that the second action could possibly have delayed the project through resultant loss of negotiations in adversary proceedings where every item of cost could be at issue.

In view of the above, we believe that the Corps should have determined, by requesting appropriate planning and financial data from UP, the validity of UP's stated intent to construct service roads and the amount of increased cost imposed on such construction by the relocation.

We believe that, at the time UP requested the Corps to provide service roads on the relocated line, the Corps should have requested such data and should have participated in the cost of providing service roads on the relocated railroad lines, because UP had indicated that it was implementing off-track maintenance programs on its main line facilities and that the relocations would impose some adverse conditions on UP's planned service road construction.

In our opinion, Federal participation should be limited to those situations where a railroad's plans to construct improvements can be clearly established and the increased cost imposed by the relocation of the planned improvements is substantial and capable of measurement. A railroad should be required to contribute the entire estimated cost of constructing the planned improvements on the old line toward the construction of the improvements on the relocated line, and the Government's obligation should be limited to the increased costs associated with the relocation.

## CONCLUSIONS

We believe that Corps' negotiations with UP resulted in the following adverse effects:

1. UP constructed service roads which were not used on the railroad lines to be replaced solely for the purpose of justifying the Government's providing service roads on the relocated railroad lines.

2. Delays were experienced in the construction of the water resources projects since UP did not sign relocation agreements until it had constructed service roads on its old lines.
3. The Government incurred the entire cost of constructing the service roads on the relocated railroad lines.

We therefore believe that the procedures we proposed would (1) discourage the unnecessary improvement by a railroad of its existing facilities on a railroad line in anticipation of the line's relocation and (2) allow the Government to participate in planned improvements at minimum cost by requiring the railroad, as a prerequisite to Federal participation, to invest in the improvements an amount equal to the estimated cost of constructing the improvements on the old line. The Corps should obtain, when it deems necessary, the concurrence of the Bureau of the Budget and the appropriate committees of the Congress relative to planned railroad improvements affected by relocations.

#### RECOMMENDATIONS TO THE SECRETARY OF THE ARMY

We recommend that the Secretary of the Army direct the Chief of Engineers to provide guidance to district officials responsible for handling railroad relocations, by issuing guidelines requiring that Federal participation in the cost of facilities planned but not constructed (1) be based upon documented evidence that planned improvements on the railroad lines would be adversely affected by their relocation and (2) be limited to the extent that the cost of the planned improvements is increased by the relocations.

We recommend also that the Corps obtain congressional consent whenever it believes that the best interest of the Government can be served by participating in the increased cost of planned railroad improvements brought about by a relocation.

## CHAPTER 4

### SCOPE OF REVIEW

Our review was conducted principally at Corps' district offices in Walla Walla and Seattle, Washington; the North Pacific Division office in Portland, Oregon; and the Office of the Chief of Engineers in Washington, D.C.

Our review was primarily directed toward evaluating Corps' policies, procedures, and practices for determining the extent of the Government's obligation to relocate railroad facilities and for limiting the Government's obligation to fair compensation in accordance with applicable provisions of law. We reviewed pertinent laws, Corps' regulations, design memorandums, records of negotiations and relocation contracts, plans and specifications, correspondence files, and other documents. We also interviewed Corps' officials relative to their determinations of design and construction standards of the facilities relocated and the necessity for relocating certain existing facilities.



**APPENDIXES**





DEPARTMENT OF THE ARMY  
WASHINGTON, D.C. 20310

8 MAY 1969

Mr. A. R. Voss  
Assistant Director  
United States General Accounting Office  
Washington, D. C. 20548

Dear Mr. Voss:

This is in reference to your draft report to the Congress entitled "Need to Improve Guidance for Relocating Railroad Facilities at Water Resources Projects, Corps of Engineers (Civil Functions), Department of the Army." (OSD Case No. 2899).

This report has been reviewed and attached is a statement of the comments of the Department of the Army. The Chief of Engineers will follow the majority of the recommendations in the report. He cannot, however, follow the "manifestation of intent" policy which the report proposes unless specific approval of the Congress is obtained for its use through enactment of legislation or through appropriations for individual relocations. In the Flood Control Act of 1962 (Title II, Public Law 87-874) the "manifestation of intent" policy was rejected by the Congress as pointed out in the comments attached.

I appreciate your courtesy in providing the opportunity to comment on your draft report.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Robert E. Jordan, III". The signature is written in a cursive style with a large initial "R" and "E".

Robert E. Jordan, III  
Special Assistant (Civil Functions)

1 Incl (dupe)  
as

Comments of the Department of the Army on  
Proposed Report of the Comptroller General of the United States to  
the Congress of the United States Entitled:

NEED TO IMPROVE GUIDANCE  
FOR  
RELOCATING RAILROAD FACILITIES AT  
WATER RESOURCES PROJECTS  
CORPS OF ENGINEERS (CIVIL FUNCTIONS),  
DEPARTMENT OF THE ARMY

This draft report (hereinafter referred to as the report) recommends that the Chief of Engineers, "provide additional guidance to District offices covering the disposition of railroad requests for replacement facilities of improved design and for Federal participation in the construction of facilities planned but not constructed by the railroads at the time of relocation. The additional guidelines should provide that, before selecting a negotiating position and informing the railroad, District offices (1) obtain and evaluate documented evidence from the railroads supporting their contention that the improvements requested are necessitated solely as a result of the relocation, (2) on the basis of these evaluations prepare proposals for negotiating settlements with the railroads, and (3) submit the proposals for comment and approval by the Office of the Chief of Engineers."

The report also recommends that, "In the interest of ensuring proper implementation of these recommendations with respect to requests for improvements planned but not constructed by the railroads at the time of relocation we are recommending that Federal participation be (1) based upon documented evidence demonstrating on the basis of non-speculative factors that a planned railroad improvement will be adversely affected by the relocation and (2) limited to the extent of the cost adversity imposed by the relocation on that improvement."

It is gratifying to note that the report concludes that the Corps policies and procedures relating to the problems discussed in the report are basically sound. It should be noted that a relocation agreement, while subject to certain and in some instances very narrow delimiting lines, is essentially the result of negotiation where some amount of leeway must be allowed. The total project costs for the three projects considered are estimated at \$989,000,000 and the railroad relocations costs are \$253,815,000. The costs which the report considers as added costs of improvements amount to about 1½ percent of the railroad relocation costs or about .4 percent of the project costs. The Corps considers these added costs to be the result of give and take factors which were highly controversial and were resolved in the interest of reaching settlement on the major items.

The Corps position with respect to the questioned items and general allegations in the report is set forth in the order presented in the report.

[See GAO note, p. 51.]

#### Service Roads

The report contends that the Corps should have included initially at project expense a portion of the cost attributable to adversity caused by this project of approximately 77 miles of service road which was nonexistent but which the railroad alleged it intended to install. The Corps knows of no authority for assuming such an obligation at project expense and the District Engineer's decision to exclude the cost of the nonexistent service roads is deemed to be correct and in accordance with Corps policy. The standard of compensation to be used when railroad property is acquired for public use is no different than that used for the taking of any other privately-owned property. The measure of just compensation for the taking of a portion of an operating railroad line is the difference between the market value of the entire line of railroad immediately before the taking and the market value of the portion that remains after the taking. Where the most economical and reasonable plan of replacement, adjustment, or relocation is less than the fair market value of the property being acquired, this cost (cost-to-cure) is the measure of the Government's obligation.

Fundamentally, the "cost-to-cure" approach contemplates a replacement in kind of the existing facilities. There is no authority under this approach to replace facilities which are not in existence at the time of negotiations. The situation is no different from that which arises in connection with other private property which is developed between the time of authorization of a project and the acquisition of the property, thereby increasing the cost. The Government pays the value of the property at the time it is acquired, but does not pay for proposed or contemplated improvements. The refusal of the railroad to negotiate on this basis demonstrates the difficulty often experienced in dealing with railroads on relocation items. It has been

## APPENDIX I

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Corps experience that the Government's acquiescence to a particular demand such as for the service road results in inclusion of identical or comparable items in all future railroad relocation contracts and that such acquiescence appears to encourage additional similar demands in future negotiations.

The Corps thus finds itself criticized for requiring a sound basis for assumption of relocation costs for a service road. The fact that the railroad offered to contribute might have reduced costs to some extent. At Lower Monumental this is indicated to be \$200,000. In retrospect the Corps had only two choices; first, to wait as it did and attempt to negotiate; or second, to place the railroad in condemnation in order to contest assuming service road costs. This second action could possibly have delayed the project through resultant loss of negotiations in adversary proceedings where every item of cost could be at issue as well as the intricate and profound engineering problems inherent in constructing a railroad line a hundred feet higher up the rugged rocky terrain on both the Columbia River and Snake River gorges.

The aforesaid Corps position is also consistent with authority and policy observed in highway relocations. The history of the highway policy is that prior to early 1961, the Corps did assume the excess costs in proper cases where a State "manifested an intent" to improve a highway beyond its existing standard and where construction of the water resource project operated to increase the cost of the highway improvements on the relocation route. However, in decision of 16 March 1961 (40 Comp. Gen. 520), the Comptroller General ruled (quotation from the syllabus): "The provision in section 207(b) of the Flood Control Act of 1960, 33 U.S.C. 701r-1, that replacement roads made necessary as the result of the construction of water resource projects should be comparable in design and standards to those of the State and of the same classification as the road being replaced, makes obsolete the Corps of Engineers policy of "manifestation of intent" under which extra costs for improved roads beyond existing design standards would be borne by the Corps; therefore, in the replacement of an Oregon highway, the Corps of Engineers should not contribute the amount of excess costs incurred in completing the relocated road to interstate standards over what would have been required to complete the original road to interstate standards."

In view of the referenced law and foregoing decision the manifested intent concept was eliminated. In April 1962 the Corps drafted a proposed revision of Section 207, upon request of Senator Robert S. Kerr, which included language reinstating the "manifestation of intent" policy. The wording is as follows: "Provided, That in instances where a State or political subdivision thereof desires to have the substitute road built concurrently with the water resources project to standards in excess of such classification, and is willing to pay,

prior to commencement of construction of the substitute road, the cost of such betterment without the effect of the water resources project, the Head of the Agency concerned is authorized to pay the additional cost of the betterment that is due solely to the effect of the water resources project."

The Congress did not enact the proviso suggested by the Corps but in lieu thereof included the following in Section 208 of the Flood Control Act of 1962 (76 Stat 1196) amending Section 207 cited above: "In any case where a State or political subdivision thereof requests that such a substitute road be constructed to a higher standard than that provided in the preceding provisions of this subsection, and pays, prior to commencement of such construction, the additional costs involved due to such higher standard, such Agency head is authorized to construct such road to such higher standard."

Section 208 omits authority for Corps participation in additional costs due to the intended improvements. The Corps position is that Congress has established a limitation on Corps participation which prohibits participation in cost of such betterments as were formerly assumed under the manifestation of intent doctrine.

It is considered that Congress, after declining to enact in Section 208 the specific manifestation of intent authority for highway relocation, certainly would be concerned if a manifested intent concept was adopted by the Corps for railroad improvements intended but not built.

The considered opinion of the Chief of Engineers is that Federal participation should not be permitted at any time based on railroad intent to construct a facility at some future date.

#### Station Facilities

[See GAO note.]

It must be realized that the relocation of the railroad lines consisted of many elements, of which quarters for personnel were a small proportion of the total cost. Consideration of all elements would show that there was a certain amount of give and take both by the railroad and the Government.

One of the cogent factors considered in determination of the railroad requirements was the railroad's obligation under the union agreements. Thus,

GAO note: The deleted comments related to matters which were discussed in the draft report but omitted from this final report.

when the railroad was adamant that replacement residences, bunkhouses and incidental facilities be consistent with its obligation to its employees, the Corps officials were constrained to reappraise the merit of railroad's demands.

The District's opinion that relocated facilities should be equal to the existing facilities is correct and is the general rule applied by the Corps. In this case, however, not only the railroad's union agreement obligations but also the extensive revision of the railroad's operational program required as a result of the lengthy relocated line sections, induced the District Engineer to express satisfaction with the railroad position and thus accepted application of current building standards and space criteria in resolution of a potential impasse.

#### Secondary Track

The classification of passing tracks separately from sidings and spurs set up an artificial distinction that is not valid. In general, siding and spur tracks are used interchangeably for switching operations, car storage and to serve railroad and commercial facilities. If all secondary track is considered as a whole the replacement appears reasonable. The GAO assertion that fewer facilities requiring service indicates a need for less secondary track is not valid. The number of facilities on a spur line or a siding is not an accurate measure of the length of track needed insofar as storage requirements are concerned. Car storage may be increased on the relocation line as business requirements may be greater even though the number of facilities may be reduced. It is agreed that more careful analysis and documentation are needed for future cases.

#### Alternate Routing

The decision to make the connection at Stryker was based on engineering judgment with the view of providing the railroad with as good an alignment and grade as was practicable. The record in the report shows that the relocated route imposes substantial operational problems with which the railroad was not burdened on the existing route. Although the new main line is shorter than the old main line, the total length of railroad to be maintained has actually been increased because of the branch line from Stryker to Eureka (formerly main line). Thus, it appears improbable that the operation and maintenance to be performed by the railroad would be less considering its total facility and the additional rise and fall of the longer, steeper grades. The selection of the Stryker-Jennings alternate appears reasonable when considering the amount of the difference between the 2 alternates (\$55,000 annual cost difference on \$3,200,000 annual cost of operation and maintenance for the portion of railroad under consideration) and the degree of accuracy of the estimate with which one is dealing.

The report notes that the facilities to be replaced were constructed before 1930 and suggests that the new line provides increased serviceability in the form of lower maintenance costs and extended service life. This is a main line, constantly maintained, involving a fully consolidated roadbed and carrying some of the best passenger trains in the United States. The fact that the line was constructed before 1930 does not mean that it had deteriorated through age. From the standpoint of the railroad, it was better than the new relocated line.

#### Recommendations

The Chief of Engineers concurs with the recommendations contained in the report with reservations concerning use of a manifestation of intent policy. Additional guidelines will be issued as recommended in the report to provide that before selecting a negotiation position and informing the railroad, the District Engineer will obtain and evaluate documented evidence from the railroads supporting their contention that any improvements requested are necessitated solely as a result of the relocation. On the basis of these evaluations the District Engineer will prepare proposals for negotiating settlements with the railroads and will incorporate these data in a design memorandum for approval by the Office, Chief of Engineers.

With respect to the recommendation that guidelines be established for allowance of costs for improvements planned but not constructed by the railroads at the time of relocation, the views of the Chief of Engineers are stated in the forepart of this reply. An alternate to the manifestation of intent policy is suggested as discussed below.

In connection with construction of new highways across authorized but not funded projects, we have in few instances, with approval of the Bureau of the Budget and the Congress, through appropriations, entered into cooperative agreements for advance relocations where building the highway at an elevation consistent with the authorized reservoir has been shown to produce an economic saving to the Government taking into account an appropriate interest rate and the estimated time before construction of the authorized project. This type of agreement provides that the Government will pay for all of the additional costs involved in building to the higher elevation while the highway departments pay the same cost that would be involved if no reservoir project had been authorized. The fact that highway department funds, usually in substantial amounts, are also invested in such cooperative arrangements insures that such advance relocations serve to avoid a full relocation by the Government of a new highway and thus produce the type of saving contemplated in the GAO report. Such cooperative effort requires advance coordination and cooperation by the owner of the facility and permits a full economic analysis with review by both the Bureau of the Budget and the Appropriations Committees. This is substantially different than the position

presented in the report in respect to maintenance roads for the railroad where upon reaching the point of taking the railroad asked for the relocation of a nonexistent facility. It is suggested that the portion of the report dealing with this particular economic loss be rewritten to point out that greater cooperation by the railroads in connection with improvements being constructed by the railroads could result in savings to the Government through an advance relocation procedure if economic advantage to the Government could be shown. It is recommended that the report otherwise adhere to the current policies requiring the existence of a facility rather than a statement of intent as the basis for negotiations.

The relocations of the railroads covered in this report, which cost in excess of one quarter billion dollars, presented a multitude of complex engineering judgments and decisions. In the overall aspects the Chief of Engineers feels that his staff in the field offices and the Washington office have done a commendable job.



## UNION PACIFIC RAILROAD COMPANY



TRANSPORTATION DIVISION  
ENGINEERING DEPARTMENT  
1416 DODGE STREET OMAHA, NEBRASKA 68102

R. M. BROWN  
Chief Engineer

April 11, 1969

OW-1-105

Mr. A. R. Voss  
Assistant Director, Civilian Division  
U. S. General Accounting Office  
Washington, D. C. 20548

Dear Mr. Voss:

Please refer to your letter of February 13 transmitting copies of your proposed report to the Congress entitled "Need to Improve Guidance for Relocating Railroad Facilities at Water Resources Projects, Corps of Engineers (Civil Functions), Department of the Army", and inviting my comments thereon.

This company recognizes, as stated in the introduction of your report, that the Congress may properly be concerned with the cost of railroad relocations, and as a consequence would want assurance that such relocations are being accomplished in the most reasonable and economic manner. Such objectives are in accord with our own desire as a substantial taxpayer. We also recognize that to determine whether or not this goal has been achieved is a very difficult assignment for the General Accounting Office.

One of the principal reasons for this difficulty, which the report acknowledges, is that many of the negotiations leading up to the relocation contracts, and many of the interpretations and applications of contract provisions in the field, were essentially oral. Consequently, there are no complete and detailed records delineating the precise bases for all relocation decisions. In principle, we agree that it would be desirable to have such records; but in reality a major relocation project involves such a myriad of details that it would be impractical, and add greatly to the cost of the project, if the Corps and

Mr. A. R. Voss  
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the railroad were to attempt a written record to document the background for every engineering or operating decision.

That portion of the report entitled "Scope of Review" indicates that the review and evaluation were conducted primarily, if not entirely, on the basis of discussions with Corps personnel, and analysis of material in their files. As a result, the conclusion was reached that ". . . the most economical alternatives for providing required equivalent replacement facilities have not been used . . ." resulting in "the serviceability of railroad facilities being enhanced significantly at government expense."

Unfortunately your auditors, in making their investigation, had very limited contact with representatives of this company. We believe that if there had been more extended discussions between your auditors and our operating and engineering personnel who were directly involved in the relocations, and if analysis had been made of pertinent material available in our files, your auditors would have gained greater appreciation of the reasons for the various relocation decisions, and your report would have reached a different conclusion.

Because of our lack of previous opportunity to explain fully the railroad position, we are particularly appreciative of the invitation extended now to review and comment on your proposed report to the Congress. However, because of the nature of the report, it is somewhat impractical to present a written analysis of each item with which we would wish to take issue. We believe greater understanding would be achieved if we could meet with your auditors and discuss the matter fully before your report is released.

While it is not feasible to comment in this letter on each specific item, we would like to point out certain general features of the report which tend to create an unfair and misleading impression, as follows:

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(1) The failure of the report to acknowledge more explicitly the fact that the relocation contracts did require the railroad to pay for betterments, and that the company did pay for such betterments.

Both the John Day agreement (Art. 8-c, p.27) and the Lower Monumental agreement (Art. 8-c, p.21) provided for the payment by the railroad of the additional cost of certain improvements over the pre-existing facility. In addition, the company paid for other improvements that were not specifically listed. The question of what is a betterment is an engineering and operating matter, and it was the subject of extensive negotiations between the Corps and the railroad. The technical judgment of experienced engineers on a matter within their field of expertise should not be lightly disregarded.

(2) The failure to point out savings that accrued to the government as a result of the Corps and railroad negotiators agreeing upon less expensive standards than would have been justified.

An example would be riprap on the John Day project. This company could quite properly have insisted upon the placement of riprap according to AREA specifications based upon earlier studies in connection with rivers and harbors. The tests and studies conducted on the John Day project indicated, however, that lesser standards might provide adequate protection, even though there could be some risk involved. As a result of agreement to use the lesser standards, a saving was achieved of between \$5 million to \$6 million. This figure is pertinent when one considers that, assuming the validity of the alleged added costs of \$1,119,000 for improvements assignable to this company, with which this company most emphatically does not agree, the riprap saving alone is 5 or more times the alleged added cost.

(3) The failure to acknowledge savings which the Government realized by the railroad's furnishing materials and services at cost, with no element of profit such as would have been required by outside contractors.

Mr. A. R. Voss

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Examples would be: Construction of track by railroad forces; construction of signal facilities by railroad forces; furnishing of specialty items of track and signal material from company stock; transporting equipment and gangs for long distances. In addition, we allowed the Government extended use of trackage for storage of outfit cars, equipment, material handling, etc.; and the railroad provided interim financing for work performed by us or by contractors employed by us for the benefit of the Government, with the loss of interest on sizable sums of money tied up for considerable periods of time for this purpose.

(4) The failure to recognize that the relocated line will not be the functional equivalent of the former line, as the railroad will have increased operating and maintenance expenses in perpetuity for which it will not be reimbursed beyond the 5-year period of deferred construction.

Such expenses include: Many miles of high excavation slopes; many miles of high embankments, saturated by the adjacent pool; many miles of riprap which were unnecessary on the former line because the track was sufficiently far from the river; some 20,000 feet of high rock protective fence with hundreds of relays which must be changed out regularly; 1,800 feet of additional bridges to maintain; and hundreds of feet of additional culverts to maintain, keep clean, and eventually replace. In addition, the new line has steeper gradients, which will increase operating expenses over the former water-level grades. The former line was some distance removed from the water's edge with adequate room for maintenance, future development, and protection of lives and equipment in the event of derailment; whereas the new line is for the most part adjacent to a deep-water pool where any derailment will in all probability result in equipment being submerged in deep water, with resultant loss of life and lading, and tremendous expense involved for recovery and restoration of equipment.

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[See GAO note.]

(6) Ambiguity in the report with respect to the precise basis for criticism.

For example, in the case of service roads, is the report saying that the railroad's intent to construct service roads was not clearly established. There are some comments which indicate that the railroad did establish such an intent; there are comments which would indicate the railroad did not; and there are comments which indicate an ambivalent position, i.e., ". . . the Corps may have been in a position to participate . . ." This company is prepared to demonstrate affirmatively that it was not only its intent to construct service roads, but that it was actively engaged in implementing that intent.

GAO note: The deleted comments relate to matters which were discussed in the draft report but omitted from this final report.

Mr. A. R. Voss

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Again, in the case of service roads, what is the report saying the basis should be for the determination of the cost to be borne by the Government? There are comments which indicate that the determination depends upon whether service roads existed in fact when negotiations for relocation agreements were initiated. Other comments indicate that the determination depends upon potential cost adversity; and other comments indicate that the cost adversity must be substantial and capable of measurement in nonspeculative terms. In the absence of a clearer statement of the basis for criticism, it is difficult to respond to the issue which is intended to be raised.

(7) Failure to recognize adequately that the relocation project must be considered as a whole in determining what is just compensation for the taking.

The Corps and the railroad have proceeded upon the basis that the desired objective is a substitute facility that is, to the fullest extent possible, the functional equivalent of that being replaced. As pointed out above, we believe that in many respects the relocated line is not as satisfactory as the former one. However, we also believe the Corps has attempted, in good faith, to accomplish that objective so far as it could within the limits of what it conceived to be its authority. In evaluating the results, we submit that the project must be considered as a whole, and it could be very misleading to give undue emphasis to particular items.

The statutes recognize this in authorizing agreements in lieu of condemnation. Thus, the Secretary of the Army is authorized to agree to a "reasonable" price (33 USC Sec. 591), and to authorize an exchange of land or other property "upon terms and conditions deemed appropriate by him" (33 USC Sec. 558b), and to engage in "highway, railway, and utility relocation" (33 USC Sec. 701c-1). Under the Land Acquisition Policy Act of 1960, it is declared to be the policy of Congress that owners and tenants shall be paid a "just and reasonable consideration", and that in order to facilitate negotiation,

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avoid litigation, etc., the Secretary is authorized to pay a purchase price that will take such policy into consideration (33 USC Sec. 596).

Because the adequacy of substitute facilities is not always capable of exact measurement, and the alternative of condemnation presents uncertainties for both parties, it is essential that the governmental agency have some latitude in negotiating an agreement. We do not quarrel with the opinion expressed in the report that more direct guidance within the Corps might be desirable, as that is a matter of internal administration. But we submit that emphasis on negotiating procedures should not be allowed to obscure the overall objective of providing a functionally equivalent facility, when considering the project as an integrated whole.

In addition to the foregoing general comments, we believe we can substantiate the validity of any particular items that may be in dispute. We would welcome an opportunity to meet with you or your staff for the purpose of such detailed discussions.

Yours very truly,

*A. M. Brown*



**SPOKANE, PORTLAND AND SEATTLE RAILWAY COMPANY**

OREGON TRUNK RAILWAY  
OREGON ELECTRIC RAILWAY COMPANY  
RUTH REALTY CO.

H. F. MOY,  
SECRETARY  
CHIEF ENGINEER

OFFICE OF CHIEF ENGINEER

1101 N. W HOYT STREET  
PORTLAND, OREGON 97207

April 17, 1969

Mr. A. R. Voss  
Assistant Director  
U.S. General Accounting Office  
Washington, D.C. 97207

Dear Mr. Voss:

I have your letter of February 13, 1969, as well as copies of your proposed report to the Congress entitled "Need to improve guidance for relocating railroad facilities at water resources projects, Corps of Engineers (Civil Functions), Department of the Army."

I wish to compliment the General Accounting Office for its comprehensive review of the situation as well as its sincerity of purpose in putting such a report together. However, I am not in complete agreement with the findings and recommendations made in the report as it applies to the S.P. & S. Railway. In my original negotiations with the Corps of Engineers, I repeatedly stated that the relocated railroad facilities would have to be at least the equal of the existing facilities in safety and stability, and in convenience and economy of maintenance and operation. This has been the aim of the S.P. & S. Railway on all relocation

Mr. A. R. Voss  
April 17, 1969  
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work handled to date with the Corps of Engineers on The Dalles Dam, McNary Dam, Ice Harbor Dam and John Day Dam Projects.

It appears to me that the General Accounting Office has completely overlooked the many disadvantages that the S.P.& S. Railway has acquired on the relocated line, which in turn have added to our present day operating costs and will continue into the future. In other words we cannot operate on the relocated line as economically as we could on the old line, and this is the important consideration rather than the comparative cost of some particular item on the old and the new line.

[See GAO note.]

I could take exception to any number of other things in the report but they are too numerous to mention. I understand that members of your staff have gone over a lot of these matters a year or two ago with the other railroads involved, but I was never contacted by anyone from the General Accounting Office regarding the John Day relocation. I, therefore, conclude that the draft of the report as submitted is not factual as it pertains to the S.P.& S. Railway.

Very truly yours

HFM-o

  
Chief Engineer

GAO note: The deleted comments relate to matters which were discussed in the draft report but omitted from this final report.

**GREAT  
NORTHERN**



Great Northern Railway Company - 175 East Fourth Street - Saint Paul, Minnesota 55101 - Phone 612 224-5588

BRUCE G. ANDERSON  
Chief Engineer

April 9, 1969

Mr. Allen R. Voss, Assistant Director  
United States General Accounting Office  
Washington, D.C. 20548

Dear Mr. Voss:

Reference is made to your letter of February 13, 1969 which enclosed a copy of the proposed report of the General Accounting Office to Congress entitled "Need to Improve Guidance for Relocating Railroad Facilities at Water Resources Projects." You asked that we review the proposed report and furnish our comments. Our comments will be limited to that portion pertaining to the relocation of facilities owned by the Great Northern Railway Company (Libby Dam Project).

On page 7 of the proposed report it is stated that in the opinion of the General Accounting Office the cost of the railroad relocations reviewed were enhanced by several million dollars and the serviceability of railroad facilities were enhanced significantly at government expense. We are not in the position to comment upon the relocation of facilities for other railroads, but deny these contentions with respect to the Libby Dam Project and assert that with respect to this project the proposed report furnishes no basis for any such opinion or conclusion.

The proposed report criticizes the Corps of Engineers' handling of the Libby Dam Project in [See GAO note, p. 65.]

that the Corps could have selected as an alternative route a route commencing at Trego rather than the route selected commencing at Stryker (pp. 40-44).

Before turning to these specific criticisms, we first point out that the major error in the proposed report's analysis of the Libby Dam Project is the failure to give effect to the legal requirement that the obligation of the government is to provide replacement facilities which will as nearly as practicable serve the owner in the same manner and reasonably as well as existing facilities. This test applies regardless of when the existing facilities were constructed.

[See GAO note, p. 65.]

[See GAO note.]

The selection of the Trego route would not have been an acceptable alternative. The Proposed report's reference to the Great Northern's initial acceptance of the Trego route as an alternative route is not accurate. While the route was included in the study prepared for Great Northern by an independent engineering firm, that study clearly indicated that the Trego route was one that should not be considered nor did the Great Northern strike this route from the itinerary of the joint reconnaissance of alternative routes to be made in June 1961 as asserted on page 41. On the same page the proposed report contends that the Corps excluded the Trego route because it imposed an additional rise and fall in track elevation which would not occur on the Stryker route. While this was one of the reasons for exclusion of the Trego route, it was only one of several reasons. The independent engineering study and Great Northern's own appraisal revealed that the Trego route would require more severe grades, greater curvature, two summits and an additional tunnel. The Corps correctly recognized that the Government was obligated to provide Great Northern with substitute railroad facilities as nearly equal to the existing railroad facilities as reasonably possible. Even the Stryker route had some discrepancies in this regard, but it clearly offered a more similar substitute than the Trego route. Therefore, regardless of cost, the Government was obligated to select the Stryker route rather than the Trego route.

Nor would the selection of the Trego route necessarily have resulted in substantial savings to the Government. We challenge the unsubstantiated assumption made in the report that the Trego route would have resulted in a saving of 2.6 million dollars. The Trego line was never run out on the ground and was in fact only a paper projection. No in depth study was ever made of this route, and the estimate of the savings claimed was based only upon assumed unit costs for land acquisition, grading, etc. There was no study showing the

GAO note: The deleted comments relate to matters which were discussed in the draft report but omitted from this final report.

actual conditions which would be encountered. The limited study did show that the Trego route proposed by the independent engineering consultant would have required relocation of the county road and one or more grade separations. It would also have required channel changes of Fortine Creek and partial relocation of a power line, and acquisition costs would have been higher than those of the Stryker route because of severance damages.

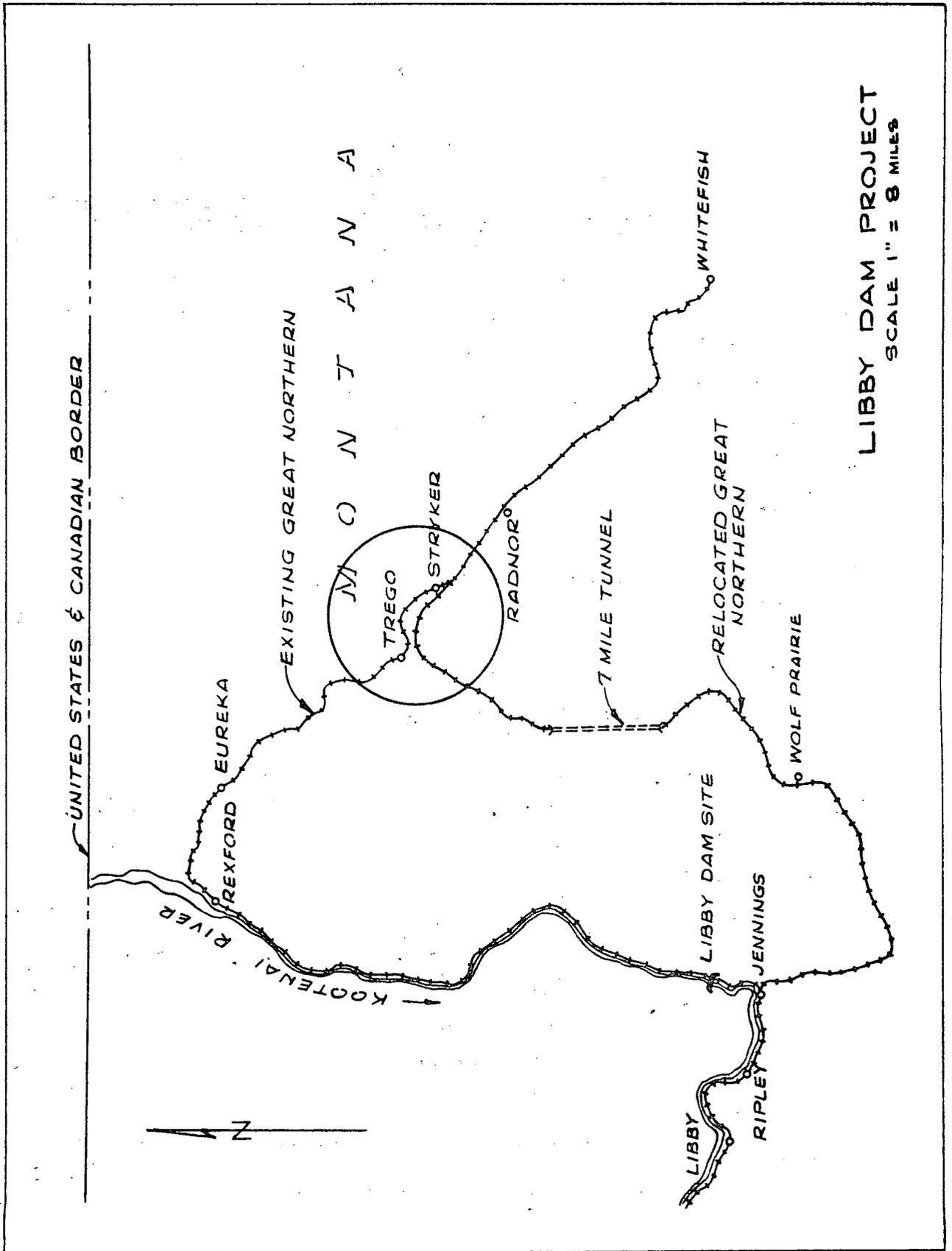
The report also claims that the Corps made an error in comparing the operating costs on the Stryker-Jennings route versus the Trego-Jennings route. The \$70,000 loss of revenue arising from the elimination of Rexford as a point on the relocated line will occur regardless of whether the line is relocated either via Stryker or Trego, since Rexford is west of Eureka and no longer will be provided with rail service. The \$70,000 is an element to be considered regardless of whether it is a proper element to be included in operating expenses. It certainly is a proper element to be considered in comparing a relocated line of railroad with an existing line.

An overall comparison of the two lines will show that the Railway's position was not enhanced. The relocated line has steeper grades, a higher summit, and a seven-mile tunnel. This line has twice the mileage at an elevation of 3200 feet or above as the old line. More snow will be encountered and for longer periods. The steeper grades will require more engine units. These factors will result in higher operational and maintenance costs. Because these factors were not considered new elements, the Corps in determining capitalized maintenance did not include these elements in the settlement amount. The serviceability on the relocated line will certainly be no greater than on the existing line.

In the negotiations leading to the Libby Dam contract and in construction of the line change, we feel the Corps has acted with commendable fairness and has recognized and carried out its responsibilities both to the Government and to the Railway.

Very truly yours,

  
Chief Engineer



APPENDIX IV

SCHEDULE OF  
ADDITIONAL COST OF STATION FACILITIES

JOHN DAY RELOCATIONS

North Shore Relocation--Spokane, Portland  
and Seattle

	Residences		Bunkhouses		Carports and trailer slabs		Total	South Shore Relocation--Union Pacific		Total	
	Num-ber	Square feet	Num-ber	Square feet	Num-ber	Square feet		Num-ber	Square feet		
Total area of relocated facilities	9	11,088	3	3,008	15	5,424		7	7,840	10	5,760
Total area of facilities to be relocated	9	<u>8,203</u>	5	<u>2,767</u>	2	<u>474</u>		8	<u>6,027<sup>a</sup></u>	7	<u>1,512</u>
Increased area of relocated facilities		2,885		241		4,950			1,813		4,248
Average cost per square foot of new facilities (note b)		\$ <u>24.37</u>		\$ <u>23.75</u>		\$ <u>3.66<sup>c</sup></u>			\$ <u>16.92</u>		\$ <u>17.44</u>
Cost of increased area		\$ <u>70,307</u>		\$ <u>5,724</u>		\$ <u>18,141</u>	\$ 94,172		\$ <u>30,676</u>		\$ <u>74,085</u>
Total square feet of facilities to be relocated		8,203		1,907 <sup>d</sup>							
Estimated increased cost per square foot of providing metal rather than wood facilities (note e)		\$ <u>7.45</u>		\$ <u>6.31</u>							
Cost of quality improvements not included in increased floor space cost		\$ <u>61,112</u>		\$ <u>12,033</u>			\$ 73,145				
Total increased cost (note f)		\$ <u>131,419</u>		\$ <u>17,757</u>		\$ <u>18,141</u>	\$ <u>167,317</u>		\$ <u>30,676</u>		\$ <u>74,085</u>
											\$ <u>104,761</u>

LOWER MONUMENTAL RELOCATION

	Residences		Bunkhouses		Hotel		Miscellaneous facilities		Total
	Num-ber	Square feet	Num-ber	Square feet	Num-ber	Square feet	Number	Square feet	
Total area of relocated facilities	21	23,520	18	10,368	1	11,616	14	2,532	
Total area of facilities to be relocated	20	<u>15,320</u>	6	<u>1,882</u>	1	<u>10,004</u>	8	<u>1,377</u>	
Increased area of relocated facilities		8,200		8,486		1,612		1,155	
Average cost per square foot of new facilities (note b)		\$ <u>20.46</u>		\$ <u>21.59</u>		\$ <u>22.74</u>		\$ <u>19.56<sup>c</sup></u>	
Cost of increased area (note f)		\$ <u>167,772</u>		\$ <u>183,213</u>		\$ <u>36,657</u>		\$ <u>22,617</u>	\$ <u>410,259</u>

<sup>a</sup> Only seven facilities are necessary in the relocation area. The facilities to be relocated have an average area of 861 square feet; therefore, the total area of the facilities to be relocated is 6,027 square feet (7 x 861 square feet).

<sup>b</sup> Contract cost for a facility divided by the average square feet of that facility.

<sup>c</sup> Composite weighted average for a number of miscellaneous facilities.

<sup>d</sup> One bunkhouse that was to be relocated was made of metal; therefore, the total qualitative increase only affects 1,907 square feet of bunkhouses.

<sup>e</sup> Difference in cost per square foot of metal facilities provided SPS and wood-frame, aluminum siding facilities provided UP on the John Day relocation.

<sup>f</sup> Our calculations were discussed with appropriate district officials to ensure their completeness and accuracy.

PRINCIPAL MANAGEMENT OFFICIALS OF  
 THE DEPARTMENT OF DEFENSE  
 AND THE DEPARTMENT OF THE ARMY  
 RESPONSIBLE FOR ADMINISTRATION OF THE ACTIVITIES  
 DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
<u>DEPARTMENT OF DEFENSE</u>		
SECRETARY OF DEFENSE:		
Melvin R. Laird	Jan. 1969	Present
Clark Clifford	Mar. 1968	Jan. 1969
Robert S. McNamara	Jan. 1961	Feb. 1968
Thomas S. Gates, Jr.	Dec. 1959	Jan. 1961
Neil McElroy	Oct. 1957	Dec. 1959
Charles E. Wilson	Jan. 1953	Oct. 1957
<u>DEPARTMENT OF THE ARMY</u>		
SECRETARY OF THE ARMY:		
Stanley R. Resor	July 1965	Present
Stephen Ailes	Jan. 1964	July 1965
Cyrus R. Vance	July 1962	Jan. 1964
Elvis J. Stahr, Jr.	Jan. 1961	June 1962
Wilber M. Brucker	July 1955	Jan. 1961
CHIEF OF ENGINEERS:		
Lt. Gen. Frederick J. Clarke	Aug. 1969	Present
Lt. Gen. William F. Cassidy	July 1965	July 1969
Lt. Gen. Walter K. Wilson, Jr.	May 1961	June 1965
Lt. Gen. Emerson C. Itschner	Oct. 1956	Mar. 1961
Lt. Gen. Samuel D. Sturgis	Mar. 1953	Sept. 1956