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CONSTRUCTION ENGINEERING RESEARCH LAB (ARMY) CHAMPAIGN
IL M J O'CONNOR ET AL. SEP 82 CERL-TR-P-137

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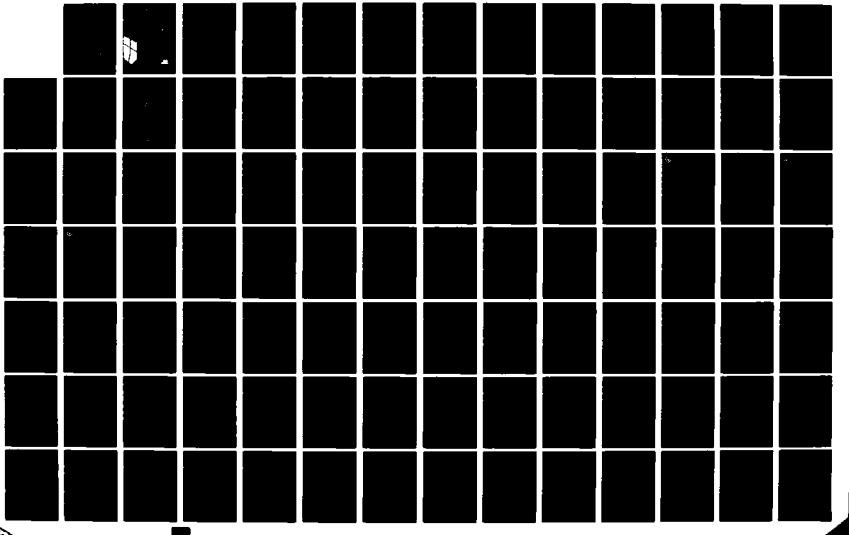

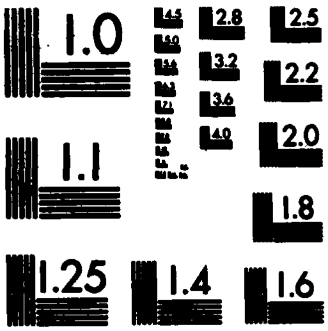

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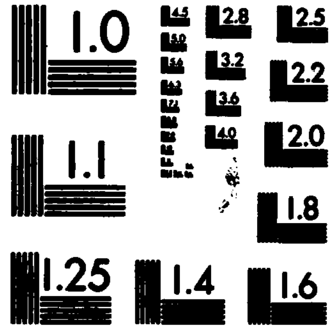

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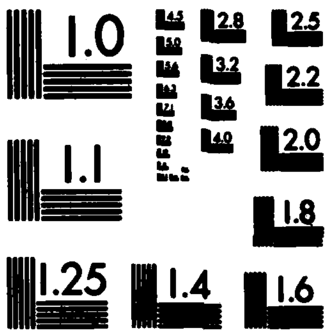

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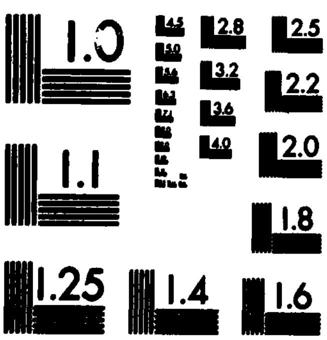

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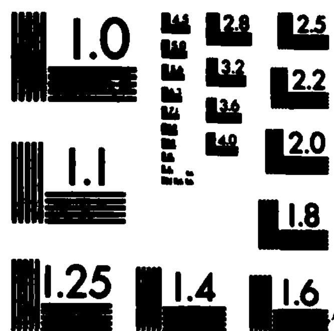

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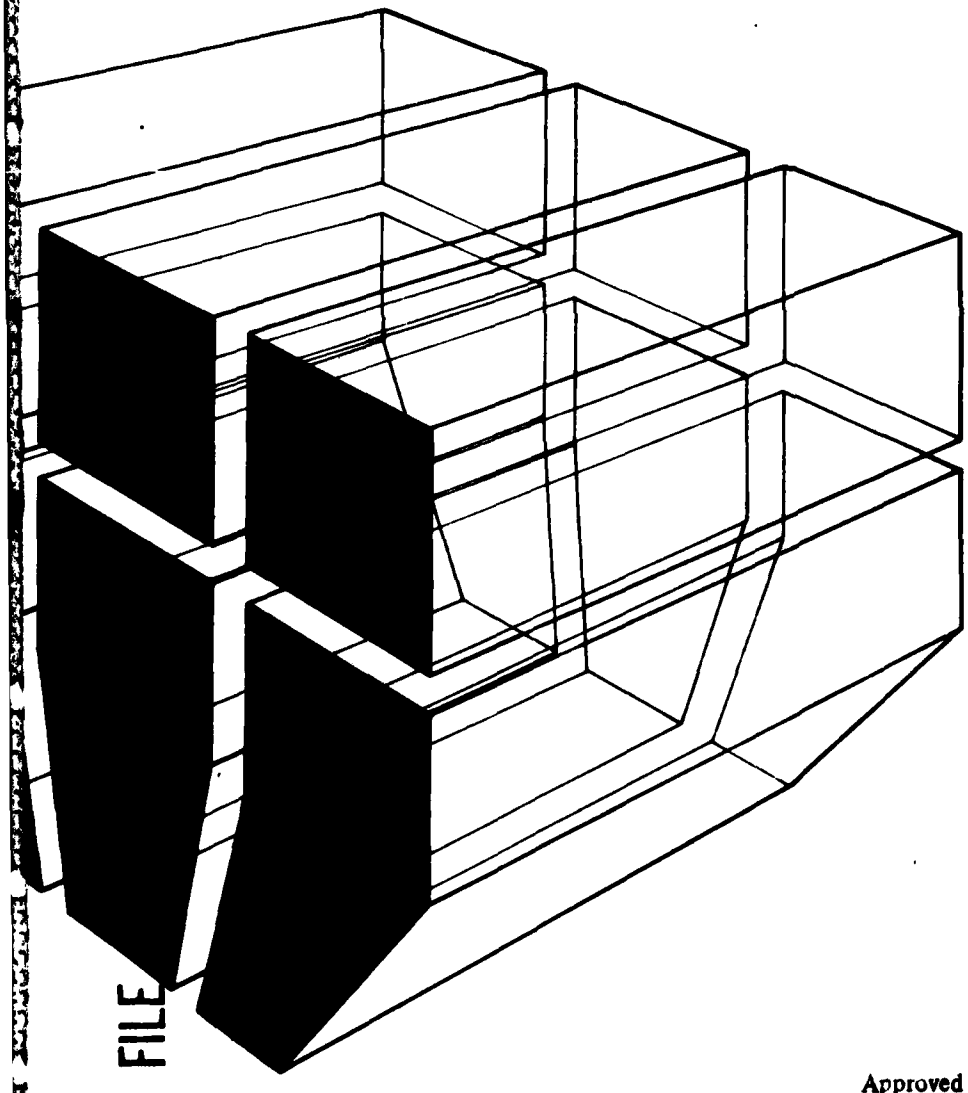
TECHNICAL REPORT P-137
September 1982

CONSTRUCTION CONTRACT PROVISIONS ANALYSIS



by
M. J. O'Connor
G. E. Colwell
L. M. Golish
M. G. Carroll

CERL

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This study surveyed Corps of Engineers divisions and districts, eight general contracting firms, and the Associated General Contractors of America to identify any clauses currently being used in the Special Provision (SP) and General Requirement (GR) sections of contract specifications they considered unnecessary, unproductive, or excessively burdensome and costly.

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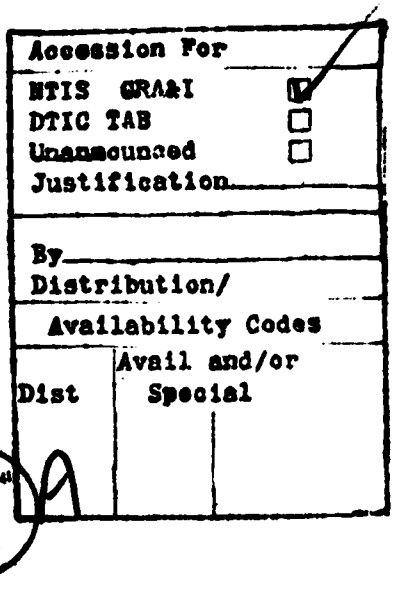
The survey identified many problem areas. This report addresses, in detail, the 13 most prominent problems, including recommended solutions. More important, the report addresses weaknesses found in the mechanism employed to produce project SPs and GRs. These weaknesses are responsible for allowing the present discrepancies not only to exist, but also to have gone essentially undetected. Improvements to the mechanism, designed to preclude recurrence of these or similar problems, are an essential part of this study's recommendations.



FOREWORD

This investigation was performed for the Directorate of Military Programs, Office of the Chief of Engineers (OCE) under FAD No. 2-28, "Contract Provisions"; Work Unit 439-R32. The OCE Technical Monitors were Dr. Robert D. Wolff and Mr. Charles D. Smith, of DAEN-MPR, and Mr. Donald Samanie, DAEN-MPC-C.

This investigation was performed by the Facility Systems (FS) Division of the U.S. Army Construction Engineering Research Laboratory (CERL). Mr. E. A. Lotz is Chief of CERL-FS.

Appreciation is expressed to the Study Advisory Committee:

Chairmen: Dr. R. D. Wolff and Mr. Charles D. Smith, DAEN-MPR.

Members: Mr. Art Bordt, DAEN-MPR; Mr. Ken Powers, DAEN-CCU; Mr. T. A. Dahlberg, MRDED-TG; Mr. John Ichter, DAEN-MPE-S; Mr. J. F. Lamond, DAEN-CWE-DC; Mr. John MacKay, SPDED-TG; Mr. Lem McRae, NADED-Q; Mr. James Perry, SADED-TS; Mr. Dave Peterson, DAEN-PRP; Mr. John Ryan, DAEN-CWO-C; Mr. Don Samanie, DAEN-MPC-C; Mr. Bill Showers, ORDED-T; and Mr. J. W. Titsworth, SWD-PS.

The cooperation and contributions of the Associated General Contractors of America, selected construction contractors, and U.S. Army Corps of Engineers divisions and districts were vital to the success of this investigation.

COL Louis J. Circeo is Commander and Director of CERL, and Dr. L. R. Shaffer is Technical Director.

CONTENTS

CONSTRUCTION CONTRACT
PROVISIONS ANALYSIS

1 INTRODUCTION

Background

The price Government must pay for its construction is sometimes thought to be significantly increased by needless or burdensome requirements placed on its contractors. This opinion is held not only by the construction industry, but by the general public and in some quarters of the Government. Much of this apparent state of regulatory "overkill" is the cumulative result of actions taken higher in the Government than the Corps of Engineers. However, the problem is of such magnitude that all levels of Government need to address it, identify the parts of the problem for which they are responsible, and take corrective action.

Major General Wray, Deputy Chief of Engineers, launched the Corps' effort by tasking the Military Programs Directorate to lead "a comprehensive review of contract provisions commonly used by our districts (obtaining input from the field as appropriate) and provide recommendations for elimination of unnecessary, wasteful and costly impacts on our work."[1] The study, done by the U.S. Army Construction Engineering Research Laboratory (CERL), focused on the Special Provisions (SPs) and Division 1, General Requirements (GRs) of the Technical Provisions (TPs) of Corps contracts. This study did not consider other TPs because the Corps is already seeking appropriate remedies, nor contract provisions required by law or regulation, because these are currently being addressed by the Office of Federal Procurement Policy (the Corps is represented on the committee performing that review).

Objective

The objectives of this study are to (1) identify the procedures and rationale used for including SPs and Division 1 GRs in construction project specifications, (2) determine the provisions to which Corps districts and contractors object, and (3) present recommendations for resolving identified conflicts or problems.

Approach

The Directorate of Military Programs assigned its office of Policy and Planning the responsibility for executing this study. A 14-member Study Advisory Committee was assembled, including personnel from the Office of the Chief of Engineers (OCE) and selected field offices. CERL was chosen to perform the work.

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[1] Disposition Form dated 22 July 1981, MG Wray, DAEN-ZB.

The Office of Policy and Planning established 31 May 1982 as the required completion date for the study. CERL's activities were designed to accomplish the most comprehensive investigation and develop the most viable recommendations possible in view of the time limitations.

Information was solicited from two main sources:

1. Corps divisions and districts were asked to provide input on their procedures and rationale for placing SPs and Division 1 GRs into contract specifications, and to indicate any clauses they or their contractors considered unnecessary or unjustified from a cost/benefit standpoint.

2. The Associated General Contractors of America (AGC) and selected contractors were asked to identify which contract requirements they considered burdensome and unnecessarily costly.

2 SURVEY

Requests for Assistance

The six Corps divisions responsible for Civil Works and military construction were asked to respond to CERL's letter dated 27 January 1982 requesting information regarding the use of SPs in Corps contracts (Appendix A). In turn, the divisions selected those of their districts best qualified to submit replies. Responses were received from 19 Field Operating Agencies (FOAs); everyone asked for information responded.

Information received from the FOAs was divided into two categories:

1. Information pertaining to the procedures and rationale for developing a district master list of SPs, and its use in preparing contract specifications. (A detailed discussion is presented in Chapter 3.)

2. Information pertaining to the identification of SPs which are considered totally or in part unnecessary, and SPs which are considered burdensome to the Government, the contractor, or both. (A detailed discussion is presented in Chapter 4 and Appendix B.)

The AGC and eight construction contractors were asked to respond to CERL's letter dated 4 March 1982 requesting information (Appendix A). To get a balanced cross section of contractor sizes and types, the contractors were selected from nominations submitted by the districts. Each nominated contractor was contacted to assure willingness to participate. Substantive responses were received from six contractors and from the AGC. (These responses are discussed in Chapter 4 and Appendix B.)

As can be noted from the letters CERL sent to Corps units and contractors, the identity of individual contributors is to remain confidential. Consequently, the names of individuals, companies, districts, etc. will not appear in this report. However, without their cooperation this study could not have been accomplished.

Analysis of Response

Any SP mentioned by more than one district or contractor was included in CERL's detailed analysis. As a result, 13 topics were considered for further study. These topics are listed in the matrix in Figure 1.

To determine the relative importance of these topics, they were ranked by both the contractors' weighted complaints and by the districts' nonweighted complaints. The two rank orders then were summed to obtain an overall ranking.

In reviewing these topics, similar problems seemed to stand out, suggesting that some of the problems may be symptomatic of a more significant problem. The symptoms common to many of these topics include overspecifying (53 percent), inconsistency from project to project (47 percent), disallowance of practice common to the industry (27 percent), excessive transfer of risk to

TOPIC	No. of Contractor Responses	Weighted Total	Contractor Rank	No. of District Responses	District Rank	Rank Subtotals	Rank*	SYMPTOM: Overspecified	Inconsistent	Disallowance	Risk Transfer	Admin. Burden	SOURCE: Regulation	Text	Intent	Implementation	Text	Intent	Practice	SOLUTION: Beyond Corps	Within Corps
Accident Prevention	2	20	6	5	2	8	5	X				X					X	X	X		X
Contract Drawings, Maps and Specifications	2	10	7	2	4	11	8		X	X									X		X
Environmental Protection	1	8	8	2	4	12	9		X			X			X					X	
Identification of Employees	0	0	10	2	4	14	12	X				X							X		X
Liquidated Damages	2	20	6	0	6	12	10	X	X		X								X		X
Network Analysis System	4	26	3	2	4	7	3	X	X			X							X		X
Payments to Contractors	3	23	5	1	5	10	7		X	X									X		X
Payroll and Basic Records	5	30	2	1	5	7	4	X				X			X			X	X	X	
Performance of Work by Contractor	1	5	9	2	4	13	11		X						X					X	
Permits	0	0	10	1	5	15	14			X		X			X					X	
Physical Data	1	5	9	1	5	14	13				X								X		X
Progress Payments	2	20	6	2	4	10	6			X							X	X	X		X
Quality Control	7	50	1	7	1	2	1	X	X			X							X		X
Salvage Material and Equipment	0	0	10	1	5	15	14	X				X			X				X	X	
Submittals and Control	4	25	4	4	3	7	2	X				X						X	X		X
Total								8	7	4	2	9	-	0	5	-	2	4	12	5	10
Percentage								53	47	27	13	60		0	33		13	27	80	33	67

*Rank = Contractor-Weighted Rank and District Rank.
In case of a tie, ranking is district rank.

Figure 1. Topic matrix.

the contractor (13 percent), and the most common symptom: excessive administrative burden to the contractor (60 percent).

Next, the source of the problem was identified for each topic. In some cases where a specific regulation was the source document, the intent of the regulation was the problem (35 percent). However, most problems could be attributed to the implementation of the regulation (when there was one) or an attempt to solve a problem not addressed by regulation. In a few cases, the actual text was the source of the problem (13 percent). In a few more cases, the intent was also a problem (27 percent). However, how and where the SPs were used was almost universal among the problem topics (80 percent). This would suggest that more detailed and concise guidance for the specifier is certainly in order.

The last step in the analysis was to identify the authority to resolve the problem. Of the 15 topics, 33 percent could not be solved by the Corps alone. However, the balance of the 67 percent were within the authority of the Chief of Engineers to resolve.

Each topic addressed in this report has its own unique situation requiring solution. Yet many of the problems highlighted in the matrix in Figure 1 can be solved by making mechanical changes to the development method, organization, and format of the specifications themselves.

The problem of deficient contract documents is certainly not unique to the Corps or the Government. A study recently done by the Kellogg Corporation for the Construction Sciences Research Foundation, Inc. asked contractors, designers, financiers, insurers, lawyers, owners (both Government and private), and others to identify the major problems that will address the industry through 1990. Using a modified "policy delphi" interrogation technique to evaluate and select major problems, the group's recommendation (in order of desirability) was to:

"1. Standardize construction documentation in terms of format, simplification, preferred language and location of subject matter.

"2. Establish the process of constructability review through in-house capability, joint venture or separate/independent review.

"3. Establish within the contract documents a clearly defined allocation of risk to the owner or as the owners may designate to agents.

"4. Upgrade qualifications of framer of construction documents specifier and contract administrator through education and certification programs."[2]

CERL concurs with the recommendations set forth by this group. The Corps has already addressed some of these recommendations, particularly in the areas of constructability review and, to some extent, standardization of format with the construction industry in the TPs. Some work also has been done in the area of risk allocations. However, standardization of format and language in

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[2] Judy Trompeter, Editor, Construction Trends and Problems Through 1990, Kellogg Corporation (Construction Sciences Research Foundation, Inc., 1981), p 36.

the contract particularly the "front-end" documents (GPs and SPs), is still needed. The treatment of specifiers and contract administrators as professionals also appears to be lacking. To maintain leadership in the Corps, more work is necessary.

3 PROCESS ANALYSIS

Special Provisions Development Process

Over the years, the districts have developed their own master specifications for SPs and in some cases GRs (Division 1). Some districts maintain separate master specifications for military and Civil Works construction, while others combine the two into one master. Generally, the master specifications contain:

1. The exact text desired for each clause.

2. Alternate clauses for differing project conditions.

Occasionally, the masters will also contain instructions on when it is appropriate to use (or not use) a particular clause, and to what extent editing is permitted. Unfortunately, most district masters did not provide this guidance.

The masters are comprised of:

1. Those requirements of the Defense Acquisition Regulation (DAR) not already placed in the General Provisions (GP) package.

2. Clauses developed by the Army or Corps considered necessary to implement GP or SP clauses developed by the DAR.

3. Other clauses developed by the Army or Corps for conditons not covered by the DAR.

4. Locally generated clauses intended to address conditions not covered in the DAR, Engineer Regulations (ERs), or other guidance.

In some cases, the districts' latitude to tailor SP clauses to suit prevailing conditions is limited to deciding if the DAR requires a particular clause, and including it verbatim, as appropriate. Those clauses in the SPs not required verbatim by the DAR represent some of the most controversial issues raised in this study. Those matters will be discussed in more detail in Chapter 4 and Appendix B.

The Flow Diagram

The flow diagram, Figure 2, shows the process through which construction procurement requirements are generated and provided to the district for compliance. Figure 3 shows district activities leading first to the development of an SP master list, and then to the use of the master specifications in preparing specifications for a construction project.

All Federal agencies must comply with the U.S. Constitution. Congressional laws cannot violate Constitutional precepts, and courts must make decisions consistent with the Constitution.

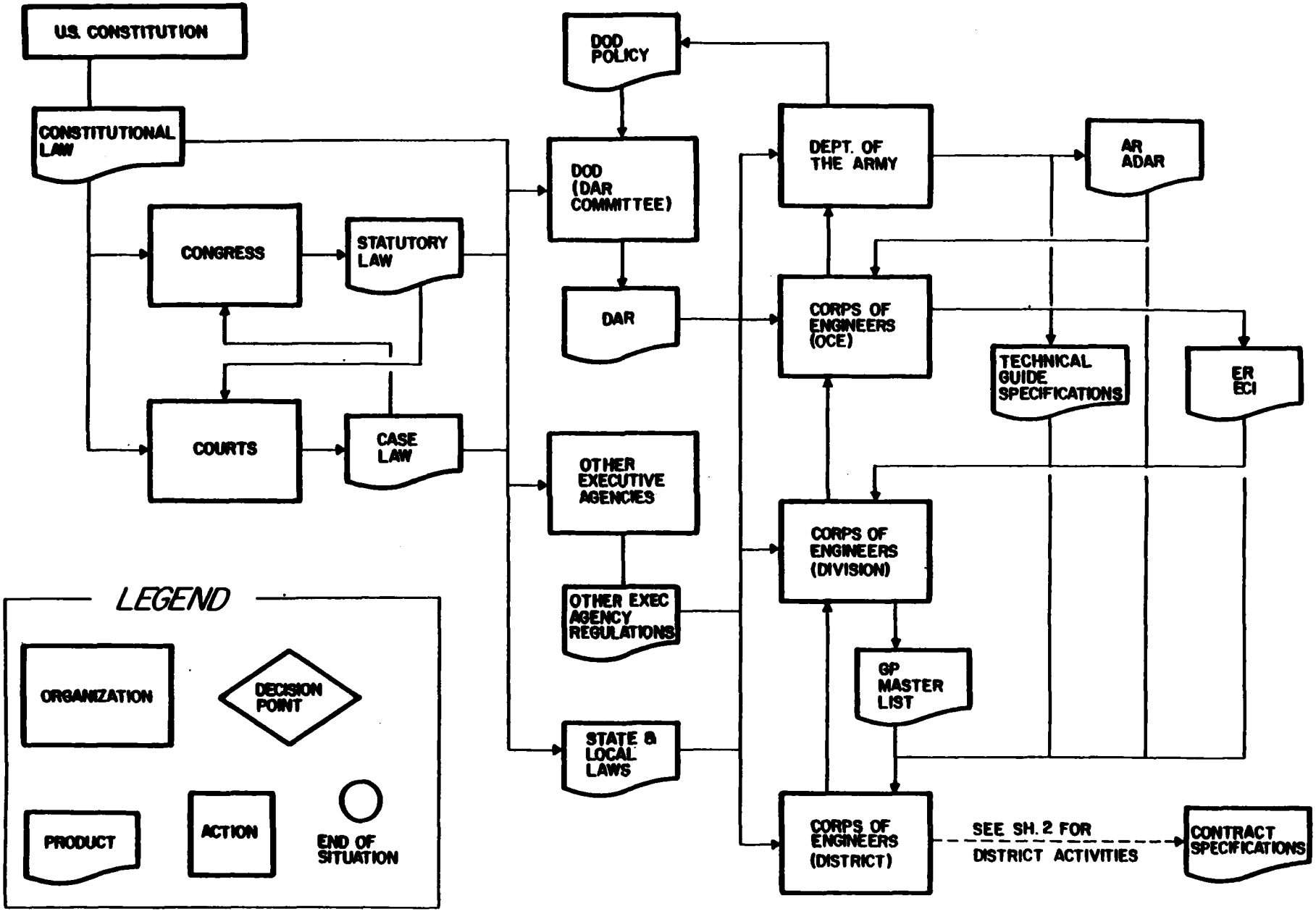

Figure 2. Construction procurement flow diagram.

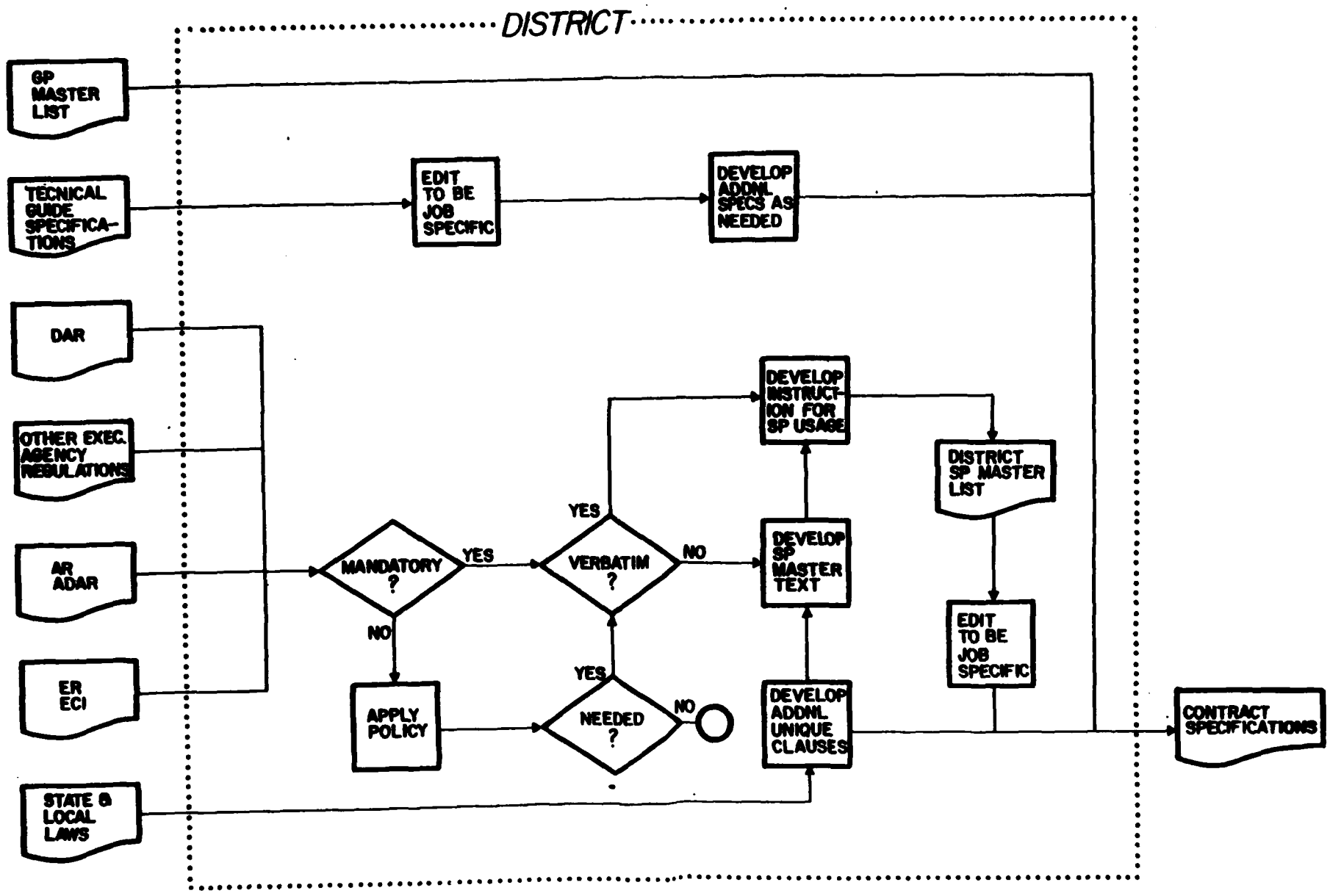

Figure 3. District activities leading to the development of an SP master list.

Congress promulgates public law. It takes into account not only the constraints of the Constitution, but also court decisions. And the court, in its decisions, often considers Congressional intent. Consistent with the Constitution, Congress can counter the effects of many court decisions through remedial legislation.

The Department of Defense (DOD) is given powers via "enabling legislation" to carry forth its duties. Although DOD is an administrative agency separate from the judicial and legislative branches of Government, its actions must conform to the law as established by the Constitution, the courts, and the Congress. But DOD can act to carry out its duty, so long as its actions do not violate any Federal law. This DOD-based discretionary authority is usually expressed as policy.

DOD is responsible for its subordinate agencies or departments down to the smallest field element. It controls and regulates the particular activity of procurement by way of the DAR. The contents of the DAR are based on both law (the Armed Services Procurement Act of 1948) and DOD policy.

The DAR council is specifically tasked with promulgating DAR regulations. Three main types of input are considered by the council:

1. Laws

2. DOD policies

3. Requests from subordinate elements for changes to the DAR.

The DAR is continually updated to reflect new legislation, new court rulings, changes in DOD policy, and requests from subordinate DOD elements for changes and/or deviations.

The DAR contains specific clauses for specific contract actions. The DAR classifies such clauses into two categories: "required clauses" (must be inserted into all contracts) and "clauses to be used when applicable" (used when the particular procurement action calls for a particular additional clause). These two types of clauses are used for each procurement activity (e.g., construction, research and development, supply) and each contract type (e.g., fixed-price construction contract, cost-plus a fixed-fee construction contract).

A DAR Contract clause applies to all subordinate levels including the Contracting Officer of the districts. The Contracting Officer is accountable for insuring "all applicable requirements of law and of this (DAR) Regulation . . . have been met."[3] In fact, DAR clauses arguably have the status of a law, since courts have read DAR clauses into contracts even though contracting officers inadvertently omitted them.[4]

DAR 1-108 specifies subordinate agencies' use of DAR clauses and their authority for altering them. Specifically, the Corps cannot alter DAR clauses to create new clauses unless:

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[3] The Defense Acquisition Regulations, DAR 1-403.

[4] G. L. Christian vs U.S., 312 F.2d 418, 320f.2d 345, Court of Claims, 1963.

1. A nonrepetitive clause is needed for an individual procurement.

2. Any change to the clause is not inconsistent with the intent, principle, and substance of the clause.

3. Interim instructions are needed to test new techniques or methods of procurement.

4. Another procedure is essential for procurement of special commodities.

5. Specialized instructions are needed for overseas procurement.

6. The material is inappropriate for DAR coverage.

DAR 1-109 defines deviations from DAR clauses:

1. When another clause is used in lieu of or in conjunction with a mandatory DAR clause changing or modifying the intent of the DAR clause.

2. When a contract clause covering the same subject matter as a nonverbatim DAR clause is used that is inconsistent with the intent, principle, and substance of the DAR clause.

3. When a mandatory clause is omitted.

4. When a standard, DD, or other form prescribed by the DAR is substituted by another form.

Subject to DAR 1-108 and 1-109, subordinate agencies or departments can supplement the wording of the actual clause where allowed. These agencies in turn publish regulations which usually adopt the numbering sequence of the DAR. Thus, DAR 7-670.3 is reflected at the Army level as ADAR 7-670.3 and at the Corps level as ECI 7-670.3. Not only can subordinate agencies or departments supplement an existing DAR clause, but they also can draft a new clause not covered by the DAR as long as it is consistent with all other DAR clauses. Instances of this in the field, although not common, are not necessarily rare. In practical terms, this means there is very little discretion at the local level in terms of the wording of an SP already addressed at a higher level. However, there is still discretion in choosing among the optional clauses that should go into a particular contract. Most districts indicated that when the optional clauses are edited for applicability, the actual wording of the clause itself is not altered except to the extent permitted by the DAR.

Districts indicate that the most discretion is used in the TPs and GRs. Generally, it is here that districts create local clauses and requirements peculiar only to that district. This is consistent with the hierarchy of clauses and the source for their wording. That hierarchy is shown in Table 1.

The GPs are supplied to districts through the Ohio River Division in the form of a master list of GPs. They are to be used verbatim.

The TPs are based on OCE Guide Specifications (when available) and local discretion. It is here that the district can apply its knowledge of specific

conditions most effectively. The district's custom clauses, however, still cannot be inconsistent with nor abrogate any higher authority clause. Thanks to automation, TPs are now codified into a master specification. Even at the TP level of clause making, though, there is some centralized control in that all contracts are submitted to one higher level for review.

The SPs and GRs are assembled at the district level in the form of a district master. These various masters have some uniformity of content in that several clauses come verbatim from the DAR, ADAR, or ECI clauses which are common to all districts. However, for the remaining clauses, the guidance presently available to districts for their preparation of SPs and GRs reaches them via several vehicles, e.g., the DAR, ER, EC, and others. Each district must make its own interpretation of all this material and translate it into district SPs and GRs for construction project specifications. This method of operation produces inconsistencies between districts, promotes conservatism and overspecifying, and generates unnecessary costs and paperwork for both the contractor and the Corps.

Review of the clauses indicate that approximately 55 percent of the clauses are district-generated. But how these clauses are classified (e.g., SP vs GR), what editing insructions (if any) are provided, and what other district-unique clauses (e.g., State and local laws, other executive agency regulations) are included vary from district to district. Therefore, to create a contract, a district edits its master list of SPs and GRs, adds the GPs and information for bidders, and combines them with the TPs to create the

Table 1

Hierarchy of Clauses and Sources

Clause Classification	Nature of Application	Primary Source of Authority
1. General Provisions	Has general application to all procurement actions and are used verbatim.	DAR
2. Special Provisions (or General Requirements)	Clauses with general application that need local input/data to complete, and/or clauses that have general applications to a wide range of (but not all) procurement actions.	DAR, ADAR, ECI, and ER
3. Technical Provisions	Limited to the specific job.	OCE Guide Specifications and local discretion.

bidding and contract documents. These documents appear together in the bid package. After the bid, the IFB (or RFTP, RFP) is extracted and the remainder serves as the contract.

Conclusions

The process being used to develop contract SPs and GRs is generating unnecessary costs and burdens for both the Corps and contractors. Its contribution to the inconsistencies and overspecifying found in the SPs and GRs far exceeds that of all other factors affecting contract requirements. The specific problem clauses identified and discussed in Chapter 4 are symptoms of process flaws. Major flaws are:

1. Fails to provide a reliable communication link for OCE policy.

2. Promotes inconsistencies in interpretations and applications.

3. Promotes conservatism and produces overspecifying.

4. Duplicates efforts of developing and maintaining a "master specification" at each district.

5. Incompatible with Corps management philosophy of centralized control with decentralized decision-making.

At this time, each district must develop and maintain its own master specification of SPs and GRs. This fosters inconsistencies in the interpretation and implementation of governing regulations and policy. Such inconsistencies are unnecessary, confusing to Corps contractors, and costly. The individual district specifications (approximately 35 masters) now in use throughout the Corps should be replaced with one master guide specification. This guide specification should be prepared by OCE, contain all repetitively used SPs and GRs, contain guidance and editing instructions that communicate OCE policy, and be in a format and style compatible with private sector practice. (Chapter 5 discusses ways to remedy process shortcomings.)

4 PROBLEM CLAUSE ANALYSIS

Those surveyed were asked to identify requirements they considered to be of questionable benefit or unnecessarily burdensome. This information allowed this study to identify and concentrate on specific problems rather than waste time analyzing clauses that neither the Corps nor the contractors consider significant problems. The 13 topics addressed in this chapter are the major problem requirements identified. Topics were ranked by the survey respondents. Each topic analysis includes (1) the problem statement, (2) discussion of the problem, and (3) recommendations.

The background analysis of each of the major topics supporting the recommendation is in Appendix B, showing specific responses, comments, regulatory references, frequency of complaints, uniformity of district clauses, and conclusions drawn by CERL.

The topics are:

Contractor Quality Control

Accident Prevention

Contractor-Prepared Network Analysis System

Submittals and Control

Progress Payments

Payments to Contracts

Payroll and Basic Records

Physical Data

Contract Drawings, Maps, and Specifications

Performance of Work by Contractor

Identification of Employees

Liquidated Damages

Environmental Protection

In many cases, the overall recommendations in Chapter 5 inherently encompass the recommendations for individual topics in this chapter. Appendix B, in addition to listing the detailed complaints and conclusions for the topics discussed in this chapter, also includes other topics of lessor significance for which limited time prevented in-depth study.

Contractor Quality Control (CQC)

1. Problem: Corps construction contracts frequently overspecify CQC requirements.

2. Discussion: The practice of specifying the number and qualifications of personnel that the contractor shall provide to perform CQC, particularly on small projects, is inconsistent with OCE policy and ER 1180-1-6, Quality Management. The districts are not using the flexibility available to them in the preparation of contract specifications for the CQC system.

The documentation required from the contractor for CQC should be varied according to the size, duration, and complexity of the project. Requiring the contractor to submit and receive approval of a plan detailing the who, what, when, where, and how of proposed CQC activities is of questionable value except on particularly critical projects. Also, the Corps practice of insisting that contractors' daily reports document all defects and deficiencies encountered (except control test results) is responsible more for causing adversary relations than it is for causing improvements in CQC effectiveness. The contractor should be able to perform CQC responsibilities regardless of the methodology he or she chooses to employ, as long as satisfactory results are achieved. Only when satisfactory results are not achieved should the more prescriptive requirements of plans, personnel, qualifications, etc. be imposed.

The belief is widespread that most contractors can and will perform CQC responsibilities more effectively and at less cost without being told "how" to do it. CQC effectiveness is not measured by the plan, organization, or reports but by the quality of the construction it produces.

3. Recommendations:

a. OCE should develop a master guide specification for CQC. The master guide specification should consist of multiple versions of the CQC clause adaptable to a wide range of job needs. Instructions on how to use the master guide specification and how to edit the clauses to precise job requirements should be an integral part of the guide.

b. The recommendation can be implemented on Corps authority alone.

Accident Prevention

1. Problem: The Corps' implementation of accident prevention measures on construction projects requires inordinate administrative efforts of its contractors.

2. Discussion: All Corps construction contracts require the contractor to submit a written accident prevention program, prepare phased job hazard analyses, and provide reports of safety meetings. This practice represents an expansion of DAR 7-602.42, Accident Prevention, which indicates in paragraph(e) that submittal of plans is required only on contracts involving work of long duration or of hazardous character. In addition, the Corps has placed these requirements in EM 385-1-1, Safety and Health Requirements Manual, which is cited in DAR 7-602.42(a) for contractor compliance. As a result, DAR 7-602.42(a) now inadvertently makes mandatory for all projects requirements that DAR 7-602.42(e) intended to limit to long and hazardous projects.

On most contracts, the time, effort, and money the contractors expend on submittals to the Corps would be better spent on the job site. As intended by the DAR, only jobs of long duration or of hazardous character justify the submittals. There are certainly many Corps projects where these submittals are an unnecessary burden on the contractor, are of doubtful value to Corps, and contribute nothing to job-site safety.

Some Corps construction contracts contain, in their SP section, reiterations of safety requirements from ER 385-1-1 and/or additional requirements created by the districts that are more stringent than requirements found in EM 385-1-1. EM 385-1-1 addresses the hazards to be encountered on the vast majority of construction projects in accordance with established standards. The need to supplement it should be the rare exception rather than the rule.

Requiring excessive paperwork and imposing unreasonable measures only increases the cost of construction without improving job-site safety.

3. Recommendations:

a. OCE should discontinue the inclusion of DAR 7-602.42(e) in the GPs of all construction contracts.

b. OCE should develop a master guide specification for the SP dealing with accident prevention. The master guide specification should contain multiple versions of an SP clause to accurately convey the safety requirements for a wide range of projects. An integral part of the master guide specification would be guidance on its use and editing to fit specific job needs without being unnecessarily burdensome for the contractor.

c. The recommendations can be implemented on Corps authority alone.

Contractor-Prepared Network Analysis System (NAS)

1. **Problem**: Corps construction contracts often overspecify NAS requirements.

2. **Discussion**: The example SP clause found in DAR 7-604.7 is used by many districts for specifying project NAS requirements. The clause requires more elaborate NAS features than are appropriate for all but the large, complex construction projects. This overspecifying unnecessarily increases the cost of construction and actually reduces the effectiveness of NAS as a management tool.

DAR 7-604.7, ER 1-1-11, and ER 415-1-303 all deal with NAS, construction progress and schedules. All encourage contracting officers to edit the examples they provide, so that the specified NAS requirements will be appropriate to the character of the work to be performed under the contract. This goal is not consistently achieved because the mechanism through which contract SPs are now generated is incapable of producing consistent and accurate results. The mechanism allows misinterpretations of OCE policy and guidance to go uncorrected, and contributes to the district's tendency to default to overspecifying in the presence of uncertainty.

The mechanism for managing SPs and GRs needs to be improved so that project specifications will consistently reflect Corps-wide policy and procedures. The present mechanism leaves too large a gap between the guidance and the project specification for the districts to fill successfully.

3. **Recommendations**:

a. OCE should prepare master guide specifications for GRs pertaining to progress scheduling. The master guide specification should contain a clause for Gantt charts, and multiple versions of an NAS clause. Editing and evaluation instructions should be an integral part of the master guide specification to facilitate tailoring of the guide specification to match the needs of any project.

b. The recommendation can be implemented on Corps authority alone.

Submittals and Control

1. Problem: Too much paperwork is required on Corps construction contracts.

2. Discussion: The paperwork for a Corps construction project can be divided into two main categories: (a) submittals for approval of materials and equipment (shop drawings, catalog cuts, certificates) originating in the TPs, and (b) submittals for approval of methods and procedures (plans, programs, schedules) originating in the GPs, SPs, and GRs. These submittal burdens begin before construction, continue during construction, and are not finished until after construction is done. The medium-to-small projects are hit hardest because they require essentially the same paper volume as the larger projects. While laws and regulations governing Federal procurement produce much of the paperwork volume, the Corps' implementation process also contributes to the problem. The cost of the contractor's administrative effort must be paid for in the contract price; in addition, the Corps generates internal costs in obtaining and processing the contractor's submittals. The Corps contribution to the contractor's paperwork burden should be as small as possible, while still adequate for effective contract administration.

The present dilemma is the culmination of years of adding requirement upon requirement. The various proponents of these requirements are often unaware of requirements imposed by others, or of the cumulative burden being placed on the construction contractor.

Much of the Corp-imposed submittal burden is unnecessary. The excessive requirements reach construction contracts via a mechanism that is prone to misinterpretation of guidance, and that fosters the conservative tendency to overspecify. Eliminating these unnecessary, burdensome requirements would reduce construction costs and improve Corps-contractor relations.

3. Recommendations:

a. OCE should prepare master guide specifications for all commonly used SPs and GRs that require a contractor submittal. Development of the master guide specifications would include a cost/benefit analysis for each clause. The master guide specifications should be distributed to the districts along with integrated guidance on their use and instructions for editing the various clauses to fit a wide range of job needs.

b. OCE's ongoing evaluation and improvement process applied to the TPs should be continued, with increased emphasis on eliminating nonessential submittals. Submittals should be required only for extensions of design, critical materials, and equipment.

c. OCE should advise the DAR committee of GP requirements that increase the cost of construction without making a reasonable contribution, and recommendations for change should be presented.

d. Except for GP changes, these recommendations can be implemented on Corps authority alone.

Progress Payments

1. Problem: The cost of Corps construction may have been increased because of EC 715-2-31, Progress Payments, which issued a "test" SP clause limiting payments to 125 percent of the Government estimate on unit price contracts.

2. Discussion: Contractors perceive that the test clause could, at best, cause them extra effort and delays in receiving partial payments. At worst, it could prevent them from collecting their full earnings until late in the job. The uncertainty of planned cash flow places a burden on the contractor which is reflected in the bid price.

EC 715-2-31 has drawn renewed attention to the old problem of front-end loading; i.e., the practice of contractors to unbalance their bids by overpricing work to be accomplished early in the job and underpricing work to be accomplished later. The motive for this is to obtain working capital and reduce the cost of financing the job. The Corps' objections rest in the prohibition of advance payments, and the risk of being in a vulnerable position in the event termination of the contract becomes necessary.

The Corps has other weapons to combat front-end loading. The Corps can refuse to award the contract to a bidder whose bid is unbalanced; and the Contracting Officer has always had the authority to limit partial payments to amounts the Contracting Officer believes to represent the value of work performed. So, the test clause really introduces nothing new. But contractors view it as another threat to the timely receipt of earnings.

Contractors' cash flow situation could be improved if the Corps made reasonable payments for mobilization costs, allowed payment for materials stored on- and off-site, promptly processed progress payments, promptly finalized change orders, and made prudent use of retainage. Contractors' predisposition to front-end loading can be diminished by these Corps actions, based on the realization that things that affect cash flow affect the price of construction.

3. Recommendation:

a. OCE should develop a master guide specification for the SP defining progress payments which incorporates the decisions reached pertinent to the test clause. The master guide specification would also contain guidance on Contracting Officer discretion and editing instructions for tailoring the master guide specification to specific job needs.

b. This recommendation can be implemented on Corps authority alone.

Payments to Contractors

1. Problem: The cost of Corps construction is unnecessarily increased because the contractor is not always paid for costs as they are incurred.

2. Discussion: Failure to pay for mobilization, materials stored on- or off-site (including fuel oil), and for demobilization when these costs are incurred adversely affects the contractor's cash flow position. Anticipation of such disruptions, whether they are announced in the bidding documents or have been learned from experience, cause contractors to adjust their bids for Corps work accordingly. Also, allowing payment for material stored off-site, but then requiring costly storage facilities, negates any cost savings that may have been realized.

In DAR 7-602.7, Payments to Contractor, and DAR 7-603.37, Payment for Mobilization and Preparatory Work, the Corps is provided all the options necessary to make prompt payments for mobilization, materials stored on- or off-site, and demobilization, as well as other contractor earnings. The fact that this is not consistently done indicates that OCE has not successfully communicated its policies on the subject to the field.

3. Recommendation:

a. OCE should develop master guide specifications for SP clauses addressing payments to contractors. The master clause would include, but not be limited to, the subjects of mobilization costs, allowance for materials stored on- or off-site, and demobilization costs. Along with the master guide specification clause(s) would be guidance on policy, procedures, and editing to assist the districts in preparing contract clauses appropriate for a wide range of contracts.

b. This recommendation can be implemented on Corps authority alone.

Payroll and Basic Records

1. Problem: The cost of construction is increased because of the requirement for submittal and checking of contractor payrolls.

2. Discussion: Labor Standards, prepared by the Department of Labor (DOL), are specified in DAR 7-602.23(a). The requirement for submittals of payrolls and compliance certificates and the maintenance of records is described in DAR 7-602.23(a)(iv). The DAR 7-602.23(a) clauses are mandatory for all Corps construction, and are placed verbatim in the contract GPs. Although the scope of this study is limited to the SP and GR clauses, this particular GP was cited by so many of those providing input that it is considered necessary to address it.

The requirement has long been recognized by the Corps as unnecessarily burdensome and costly to both the contractor and the Corps. At this time, the Department of Defense (DOD) is seeking relief from DOL. It appears that DOL will reduce the requirement to a weekly statement of compliance, while DOD is still trying for a one-time statement of compliance. Final rules are expected in the near future.

3. Recommendation:

a. OCE should issue a revised GP list immediately upon receipt of new rules from DOL and DOD. If necessary, OCE policy guidance on implementing the new rules should accompany their distribution.

b. The Corps authority in this matter is limited to implementing the requirements promulgated by DOL as defined in the DAR.

Physical Data

1. Problem: Some districts have included in their physical data SP exculpatory language to reduce Government liability for differing site conditions.

2. Discussion: Two districts (same division) have added language to the recommended DAR 7-603.25 clause, Physical Data, in an attempt to reduce modifications and claims for variations in subsurface conditions. One district clause attempts to prevent modification by stating that "minor" variations of the soil conditions are typical for the region and expected; therefore, such variation will not be considered "materially" different as defined in GP-4, Differing Site Conditions. Based on the district's own complaint, this addition has done little to solve its problems with claims and modifications for uncovered rock in its area.

The second district used the same addition to the SP, with the exception that the word "minor" was not included. This deletion completely changes the meaning and intent of the clause. Additionally, it appears to be in conflict with GP-4.

Both of these attempts to augment (or circumvent) the intent of the SP as well as the GP are ineffective, costly to the Government, and appear to be in violation of the intent of DAR 7-602.4, Differing Site Conditions.

3. Recommendation:

a. OCE should develop a master guide specification that supplements DAR 7-603.25 and considers the problems of these districts and others. The resulting specification should reflect a consistent philosophy in allocating risk to the contractor throughout the Corps.

c. This recommendation can be implemented on Corps authority alone, unless the new master guide specification revises the basic philosophy of DAR 7-603.25.

Contract Drawings, Maps, and Specifications

1. Problem: Contractors are frequently provided an inadequate number of contract documents, both for bidding and after contract award.

2. Discussion: In an apparent attempt to help keep operating costs low, many districts do not print extra contract documents (plans and specifications) until there are specific requests for additional copies. This practice, while helping to keep costs low, has caused errors and delays in preparing bids and getting projects started.

The argument that additional copies can be made available if needed unfortunately does not seem to work well, since the delay between the request and the actual printing has been excessive. In-house printing staffs often yield to the pressures of change order drawings or new projects needing to go "on-the-street." Additionally, the distance between the contractor and the district is sometimes a factor. As a result, pennies are saved at the expense of dollars. This practice is false economy and a detriment to providing a quality project on time.

3. Recommendation:

a. OCE should prepare an EC supporting the increased availability of contract documents and discouraging the restricted printing of documents. The use of reproducibles should be encouraged to aid the contractor when shortages do occur.

b. OCE should develop a master guide specification for the SP clause, Contract Drawings, Maps, and Specifications. Along with the master clause would be guidance and editing instructions for use in deciding the appropriate number of sets to be provided for a wide range of project sizes and types.

c. These recommendations can be implemented on Corps authority alone.

Performance of Work By Contractor

1. Problem: Requiring the prime contractor to perform a specific percentage of the work in all Corps projects is unnecessarily restrictive.

2. Discussion: Current guidance (the DAR and ECI 7-603.15) requires that 20 percent of the work (15 percent for family housing) must be accomplished by the prime contractor. ECI 7-603.15 allows this clause to be deleted below a $1 million threshold yet, without exception, all districts have included the clause and some have raised the percentage to as much as 35 percent. This blanket inclusion of the clause is excessive and unnecessary.

Many Corps personnel suggest that the original reason for the clause -- to prevent brokering -- is anachronistic in the current construction market. However, the clause is now being misused as a secondary defense to prevent debarred, suspended, or nonresponsible contractors from doing Corps work -- problems that should be corrected prior to award. Additionally, the clause is often being modified after award of the contract to relieve the contractor from this unnecessary requirement. This practice is arbitrary and undermines the credibility of the requirement.

3. Recommendation:

a. OCE should prepare an EC defining policy for the divisions on the use of the clause and encouraging them to take advantage of the $1 million threshold whenever possible. When the clause is needed, the percentage used should be limited to the 20 percent requirement (15 percent housing), unless specific project requirements dictate a higher percentage.

b. OCE should recommend to the DAR committee that the clause be deleted or modified to suit current construction practices.

c. The first recommendation (issuing an EC) can be implemented on Corps authority alone.

Identification of Employees

1. Problem: Some districts are unnecessarily including the "Identification of Employees" clause in Civil Works projects.

2. Discussion: Some districts have "boilerplated" this clause into their master specifications, resulting in its inclusion in all Corps contracts. The DAR guidance for inclusion indicates that it should be used "...where identification is required for security or other reasons." Although the guidance is vague in defining what other reasons would be valid, it is clear that the specific project should dictate the need for this clause. It is not clear why Civil Works projects need this clause except in unusual circumstances. The result is unnecessary additional costs to the Government.

3. Recommendation:

a. OCE should prepare a more detailed master specification identifying specific contractor requirements and limiting unnecessary discretion authority after bidding of the contract.

b. This recommendation can be implemented on Corps authority alone.

Liquidated Damages

1. Problem: Contractors feel that the amount of liquidated damages in some Corps contracts is excessive and therefore punitive.

2. Discussion: Contractors have indicated that on recent Civil Works projects, the amount of liquidated damages have been set so high that it no longer reflects reasonably anticipated costs to the Government. Additionally, these contracts have attempted to assess consequential damages beyond the liquidated damages specified in the contract.

When stipulated, liquidated damages take the place of any actual damages suffered and the amount to be recovered is limited to the amount agreed upon.

Corps guidance is specific as to what is considered reasonable to consider. It includes the estimated cost of inspection and superintendence, and other specific losses such as the cost of substitute facilities, the rental of buildings, or the continued payment for quarters allowance. It does not include consequential or other indirect costs that result from delays in addition to the specific liquidated damages.

The review of district masters uncovered no evidence of districts attempting to include consequential damage in addition to liquidated damages. Apparently, the examples cited by the contractors were limited to one district's attempt to mitigate potential problems on a large Civil Works project.

While it is impossible to determine if districts are correctly determining the appropriate amount of liquidated damages, it is clear that many contractors' perception is that the amounts are unjustified. This perception is almost as dangerous to the contract relationship as actually specifying an unjustified amount. When contractors feel that the amount is excessive, they will either adjust their bid amounts to reflect the additional risk or not bother to bid the work.

A prime reason for liquidated damages is to reduce potential court costs in the event of litigation. However, if the contractors are needlessly adding to their bids, the potential economy is lost.

3. Recommendation:

a. OCE should develop a master specification with guidance for determining the appropriate amount of liquidation damages. This guidance should clarify the reasons for liquidated damages and the legal ramifications of overspecifying the amount or additional damage.

b. Districts should itemize and list in the SP the liquidated damages on large contracts to help bidders understand the valid costs to the Government. This itemization could follow the text of DAR 7-603.39 when it is used.

c. These recommendations can be implemented on Corps authority alone.

Environmental Protection

1. Problem: Corps construction contracts express environmental requirements in broad terms, often unrelated to the nature of the project.

2. Discussion: The general nature of the environmental protection provisions contained in the contract SPs provides little definition of the GP clauses. This broad approach can make it difficult for contractors to accurately estimate the cost of implementing environmental protection. Doubt as to what is really required invariably raises the cost of doing the work.

It is not surprising that Corps districts have not yet reached the point where environmental requirements can be tailored to the needs of each project. The fear of underspecifying can be very real when there are 15 separate laws that must be complied with dealing with environmental protection, and when DAR 7-602.34, Protection of Vegetation---(1965), DAR 7-103.29, Clean Air and Water Act (1975), and ECI 7-671.10, Environmental Litigation, constitute the total source of guidance provided through channels.

A review should be made of all the 15 laws related to environmental protection. The applicable provisions of each law then should be drafted into the DAR clauses. This would improve the chances that contract specifications can be prepared with environmental protection features that are neither more nor less than the law requires. In turn, the Corps would be relieved of two fears: (1) the fear of not including all provisions required by law, and (2) the fear of incurring unnecessary costs by specifying more than the law requires.

3. Recommendation:

a. OCE should work with the DAR committee to produce DAR clauses that promulgate all the environmental laws pertaining to construction.

b. OCE should develop a master guide specification for the construction contract GR dealing with environmental protection. The master guide specification should be in a format conducive to editing to express a wide range of project-specific conditions. Guidance for the use of the master should be an integral part of the document.

c. The Corps can provide input and recommendations to the Department of the Army (DA), but the expansion of the DAR clauses recommended in "a" above is beyond Corps authority. Recommendation "b" can be accomplished on Corps authority alone.

5 CONCLUSIONS AND RECOMMENDATIONS

Elsewhere in this report, specific conclusions and recommendations were made for the particular clauses that had been identified as troublesome. Those conclusions and recommendations will not be repeated here. Rather, more comprehensive conclusions and recommendations will be made. They are based on general patterns found within the collection of comments made by the districts and contractors.

If the reader is only concerned about an individual clause, he or she should refer to Chapter 4. If, however, the reader is concerned about the significant, underlying problems running through nearly all of the clauses, he or she should consult Chapter 3 and this chapter.

Conclusions

As the diagram in Figure 3 shows, there is specific guidance provided the districts with respect to the GPs and TPs. In the case of TPs, that guidance is then tailored by the districts to fulfill the needs of each construction contract. The GPs apply to all construction contracts and, by regulation, may not be altered. But no such clear-cut guidance and distribution of responsibilities and authorities exist for the SPs. The districts are on their own when it comes to developing SPs and/or Division 1 GRs for a construction contract.

The absence of comprehensive, Corps-wide guidance has caused each district to develop its own guidance for SP applications. Their SP master specifications are the means used to expedite contract SP preparation and avoid the inefficiency of reinventing the wheel for every contract. The districts' SP masters and their use instructions reflect the districts' perception of the pertinent regulations and policy. That perception varies significantly from district to district. In some instances, all districts appear to have reached conclusions that are not entirely consistent with the applicable regulations and policy. This situation, combined with the tendency to be conservative, produces SPs and GRs that are frequently overspecified. The present process also promotes undesirable inconsistencies among districts.

Overspecifying is a well-intentioned but costly attempt to avoid risk and assure success. In reality, the expected benefits are seldom realized while the price must always be paid. It is hard to estimate how much the Corps pays for the overspecifying that occurs in its SPs and GRs, because the cost is buried in the bid price. But, regardless of their location in the specifications, whenever requirements are included that are unnecessary, ask for more than is needed, or place an unreasonable administrative burden or unusual risk on the contractor, the price of performing that construction is also unnecessarily increased.

This study has shown that both the Corps and contractors realize overspecifying is occurring. Thus, the present method of producing contract specifications, which is producing significant inconsistencies and overspecifying, must be altered. Failure to take action will deteriorate the Corps' ability to administer a sizable workload, diminish its credibiilty as the

Government's pre-eminent construction agency, and continue to raise the cost of its work in comparison to its Government counterparts and the private sector.

Executive Order 12352 of March 17, 1982, deals with "Federal Procurement Reforms." (See Appendix C) It states, in part:

> "...the heads of executive agencies engaged in the procurement of products and services from the private sector shall: ...reduce administrative costs and burdens which the procurement function imposes on the Federal Government and the private sector...improve competition by such actions as eliminating unnecessary Government specifications and simplifying those that must be retained... ensure that personnel policies and classification standards meet the needs of executive agencies for a professional procurement work force...identifying major inconsistencies in law and policies relating to procurement which impose unnecessary burdens on the private sector and Federal procurement officials...."

The recommendations resulting from this study that follow are directed toward improving Government efficiency, improving competition for Government work, and reducing the administrative burden on both the contractor and the Corps. Actions to implement these recommendations would be appropriate at any time; however, in view of Executive Order 12352, it would appear that such actions are imperative.

Recommendations

The numerous district-prepared SP and GR master specifications should be replaced with one set of OCE-prepared master specifications. The OCE master should be prepared by qualified specification writers in language, form, and format conducive to job-specific editing by the districts. As a minimum, the topics listed in Appendix D should be considered in developing the master. Topics that have not been clarified in current specifications are listed as "new" in Appendix D. Subsets within the master should be identified for easy extraction for small jobs, military, civil, or other special needs. The master format should use a decision-tree editing technique rather than deletion-type editing wherever possible. Unique clauses for a particular project should be prepared by the district and given to OCE for consideration in the OCE master list. The master specification should be maintained to reflect the latest regulations and policy. It should be updated annually (more often if needed to stay current) to reflect feedback from district experience.

This recommendation will produce the following benefits:

- Promote consistently high-quality, job-specific SPs and GRs for Corps construction contracts.

- Eliminate the inconsistencies in regulation and policy interpretation and associated problems.

- Allow district resources presently devoted to master specification maintenance to be used in developing job-specific requirements, constructability reviews, etc.

- Reduce the cost of construction by eliminating (1) inappropriate and unenforceable language, and (2) the unnecessary administrative burden on both the contractor and Corps.

- Maintain the Corps' image and prestige as a leader in the field of construction acquisition by applying state-of-the-art specifying techniques.

APPENDIX A:

REQUEST FOR ASSISTANCE LETTERS

DEPARTMENT OF THE ARMY
CONSTRUCTION ENGINEERING RESEARCH LABORATORY, CORPS OF ENGINEERS
P.O. BOX 4005
CHAMPAIGN, ILLINOIS 61820

REPLY TO
ATTENTION OF:
CERL-FS

4 March 1982

Dear (Contractor):

The U.S. Army Corps of Engineers is studying its construction contract provisions. The purpose of the study is to identify requirements that are unnecessarily burdensome to the contractor, and to recommend changes that can reduce this impact on the cost of Corps construction. We would appreciate your assistance on this study.

This phase of the study deals primarily with those requirements set forth in the Special Provisions and/or Division 1, General Requirements, of the Technical Provisions. Nevertheless, comments or recommendations you wish to make on any part of the contract administration activities will be welcomed.

You are requested to use the Special Provisions/General Requirements from an active or recently completed Corps construction contract as the point of reference, and to furnish them with your response.

Your assistance is requested in providing the following information:

a. Identify the Special Provisions or General Requirements (Technical Provisions, Division 1) which you consider unnecessarily burdensome or costly.

b. Rank the requirements you identified in (a), using a 1-10 scale with 10 indicative of the highest relative burden or cost.

CERL-FS

c. List any other bid and/or contract practice, requirement, condition, or document that, in your experience, causes substantial burden and appears to contribute little to the quality or timeliness of the construction.

To meet our schedule, your response should be received by 19 Mar 82. Because our schedule is tight, you are one of only a few contractors being asked for assistance. Consequently, your input will have significant impact on recommendations produced by the study.

Please return your response to:

USA Corps of Engineers
Construction Engineering Research Laboratory (CERL)
ATTN: Mr. Glenn Colwell/FS
P.O. Box 4005
Champaign, IL 61820

If you have any questions, please contact Glenn Colwell at (217) 352-6511, Ext. 514.

Sincerely,

LOUIS J. CIRCEO
Colonel, Corps of Engineers
Commander and Director

DEPARTMENT OF THE ARMY
CONSTRUCTION ENGINEERING RESEARCH LABORATORY, CORPS OF ENGINEERS
P.O. BOX 4005
CHAMPAIGN, ILLINOIS 61820

REPLY TO
ATTENTION OF:
CERL-FS

27 Jan 82

SUBJECT: Request for Assistance - Contract Provisions Study

SEE DISTRIBUTION

1. The Corps is frequently criticized by the contracting industry for including in its contract provisions many requirements which are perceived to add a tremendous and unnecessary administrative burden to the contractor, add materially to the cost of our projects, lengthen the construction process, and provide no useful purpose. OCE has tasked the Construction Engineering Research Laboratory (CERL) to study commonly used construction contract Special Provisions (SP) and General Requirements (Division 1) and to review the procedures used by the Districts in preparing SP and Division 1 requirements. At this time, the General Provisions and Technical Provisions are not a part of this study, except as they interface with the SPs and the Division 1 requirements.

2. In support of this effort, you are requested to provide and/or cause your Districts, as appropriate, to provide CERL the following:

a. A set of the Special Provisions and General Requirements (Division 1) used repetitively in your construction contracts. (Provide separate sets for civil works and military construction if they are different).

b. Provide a description of the procedures you employ for initially deciding what Special Provisions and/or General Requirements are to be placed in a contract, the degree to which they are edited to be job specific, the guidance used (do you have a "master" list?), and the review process. (This information is requested on a case by case basis if different for different SPs).

c. Identify any of the requirements provided in (a) which you feel are of questionable benefit. Also, identify any that you believe contractors considered an unnecessary burden.

CERL-FS
SUBJECT: Request for Assistance - Contract Provisions Study

d. Any other information, ideas, or recommendations toward reducing the administrative burden on Corps contractors, without reducing the quality or timeliness of construction.

3. We assure you that in no instance will information furnished be used in a way critical of any contributor. All information received will be consolidated by CERL and the Division and/or District source will not be identified in the report.

4. To maintain the schedule established for the study, your response should reach CERL on or before 19 Feb 82. Address responses to:

USA Construction Engineering Research Laboratory (CERL)
ATTN: Mr. Glenn Colwell/FS
P.O. Box 4005
Champaign, IL 61820

5. Questions concerning this request or the study should be directed to Mr. Glenn Colwell, CERL-FS, FTS: 958-7313 or COMM: (217) 352-6511, Ext. 313.

LOUIS J. CIRCEO
Colonel, Corps of Engineers
Commander and Director

DISTRIBUTION:

DEPARTMENT OF THE ARMY
CONSTRUCTION ENGINEERING RESEARCH LABORATORY, CORPS OF ENGINEERS
P.O. BOX 4005
CHAMPAIGN, ILLINOIS 61820

REPLY TO
ATTENTION OF:

CERL-FS

4 Mar 82

Mr. Hubert Beatty, Executive Vice President
The Associated General Contractors of America
1967 E. Street NW
Washington, DC 20006

Dear Mr. Beatty:

The U.S. Army Corps of Engineers is studying its construction contract provisions. The purpose of the study is to identify requirements that are unnecessarily burdensome to the contractor, and to recommend changes that can reduce this impact on the cost of Corps construction. We would appreciate your assistance on this study.

This phase of the study deals primarily with those requirements set forth in the Special Provisions and/or Division 1, General Requirements, of the Technical Provisions. Nevertheless, comments or recommendations you wish to make on any part of the contract administration activities will be welcomed.

Your assistance is requested in providing the following information:

a. Identify the Special Provisions or General Requirements (Technical Provisions, Division 1) used repetitively in Corps construction contracts which you consider unnecessarily burdensome or costly.

b. Rank the requirements you identified in (a), using a 1-10 scale with 10 indicative of the highest relative burden or cost.

c. List any other bid and/or contract practice, requirement, condition, or document that, in your experience, causes substantial burden and appears to contribute little to the quality or timeliness of the construction.

To meet our schedule, your response should be received by 19 Mar 82. Because our schedule is tight, only you and a few contractors (Incl 1), are being asked for assistance. Consequently, your input will have significant impact on recommendations produced by the study.

CERL-FS
Mr. Beatty

Please return your response to:

USA Corps of Engineers
Construction Engineering Research Laboratory (CERL)
ATTN: Mr. Glenn Colwell/FS
P.O. Box 4005
Champaign, IL 61820

If you have any questions, please contact Glenn Colwell at (217) 352-6511, Ext. 514.

Sincerely,

1 Incl
As stated

LOUIS J. CIRCEO
Colonel, Corps of Engineers
Commander and Director

APPENDIX B:

IDENTIFIED PROBLEMS ANALYSIS

TOPIC 1: CONTRACTOR QUALITY CONTROL

REFERENCES: DAR 7-602.10a, ER 1180-1-6

COMPLAINTS:

Corps District/Division Comments

1. "Too much emphasis is placed on this. Eliminate all reference to QC, QA and the like in the Special Provisions and/or Technical Provisions and retain the GP Clause Contractor Inspection System."

2. "The requirement of Contractor Quality Control is questionable, particularly on smaller projects, since good construction really depends on adequate construction inspection."

3. "Contractors resist providing detailed reports to the Corps describing construction defects. Recommend modifying quality control requirements of Special Provisions and increase quality assurance personnel on projects. This one item probably causes more problems on a project than any other items. It is impractical to expect an employee of the contractor to report or list deficiencies. Any failure of the CQC to list deficiencies creates tension between contractor and Corps personnel and results in an additional administrative burden on Area, District, and Division personnel."

4. "Our District currently requires that for contracts exceeding $1,500,000, the contractor shall furnish a full-time quality control representative for the life of the project. This person is not to serve in a dual capacity as job superintendent or similar supervisory position. This, of course, is an extra cost item which significantly impacts the total project cost. District experience indicates that this limit could be raised to at least $2,500,000 and not compromise the integrity of quality control. An investigation into this matter is now underway within the District."

5. "Several contractor organizations have commented on the additional construction costs attributable to the duplication of quality control by the Corps. They contend that many of the reports required by the Corps are duplications and require added paperwork on both the part of the Corps and contractor. As one means of reducing the cost, the Corps is being urged to emphasize the fact that the laboratory facilities should be shared by the Corps and the contractor."

6. "Daily reports are required. It is recommended for small projects ($200,000 and less), only weekly reports be submitted to the Government. Additional relief for contractors can also be considered by the elimination of Contractor's Quality Control Plan for lump sum contracts noted above. Contract plans and specification already cover all contract requirements and the level of quality required for construction. Contractors are also reluctant to report their own deficiencies in their reports. Paperwork required for small contracts is of questionable benefit. It is further suggested that on a trial basis some contracts be considered under this suggestion to see if the Contractor concurs that administrative burden has been reduced, without sacrificing contract requirements and quality."

7. "It is our opinion that Quality Control Provisions should be condensed into a form whereby the Corps of Engineers can still obtain a quality product without imposing voluminous and cumbersome administrative requirements on the contractor, especially the small business contractor that does not have an adequate administrative staff."

8. "In general, the Special Provisions for Quality Control normally go into too much detail specifying the number, type, and qualifications of personnel that are to be designated for the Contractor Quality Control staff. We believe that emphasis must be placed on Contractor Quality Control to insure that the Corps of Engineers will obtain a finished product in strict compliance with contract provisions but the CE should not burden the contractor with specific quality control staff requirements and what their qualifications should be. Information such as the control of on-site construction in three inspection phases for all definable features of work and the daily quality control inspection reporting should remain."

Contractor Comments

1. "In the long run this has been helpful to us; doing it right the first time produces lower costs. The difficulty is in specifying a number of warm bodies of the required pedigree. Tell us what you want done and let us get about our work! But you tell us what you want done, then how to staff it, then how to report it, and finally we alone are deficient if all this does not produce the ideal."

2. "There is no question that the Government is not getting its money worth with the Quality Control Program. They could take the same dollar that they are spending through the contractor and put back into their own inspection system and get twice as much out of it. We feel if the successful contractor is a good contractor he is going to give a good job without quality control as it is known today, and on the other hand, if you get a bad contractor, chances are his quality control system will be no better. Quality control can cost in excess of $100,000 per year per job depending upon the job and in many cases does.

"A few explanations of other quality control problem areas:

"a. If structural steel drawings are required to be contractor-certified, he has to send same to an engineer who has to start from scratch to obtain the design loads, where the engineer who did the design already has these calculations.

"b. There has been many times where an item has been contractor-certified or approved and has been installed into the project, only to find out that our interpretations of the item are not the same as the Government's and (the item) ends up being removed.

"c. We feel that no submittal should be contractor-approved, since the Government along with the architect know what they are looking for and should be able to approve same faster and there is a lot less of a chance that a problem will arise at a later date."

3. "This is some duplication of cost since the Government continues to perform the same level of quality control it did prior to this program. It is suggested that Contractor Quality Control be removed as a contract requirement."

4. "In all cases this is a duplication of personnel and equipment. Basically, it requires the contractor to provide personnel to inspect his own personnel. It places the particular employee in the position of being paid by the contractor, but with the contractor having no control over the employee's performance. All equipment furnished to the Government is duplicated in contractor's own effort."

5. "The concept of contractor quality control is very good. The cost of a separate quality control individual to be employed by the contractor at the project site 100 percent of the time is approximately $30,000 per year, including salary, payroll overhead, etc. This is partially unnecessary. If the designated quality control person was required to be on the job 100 percent of the time through 50 percent completion of the work, he would have done 90 percent of what he is capable of doing in reality. After that point on the job, the General Building Contractor quality control man is monitoring mostly specialty trades work. He has little or no knowledge of electrical, mechanical, and other specialty trade systems. The general superintendent could assume responsibility for the last half of most building projects."

6. "This special provision requires that the contractor must establish a Quality Control staff and organization for the inspection of the construction work on the project. The Corps lists the many requirements for the individuals which the contractor is required to employ as part of their Quality Control staff, and also lists the reports which were required to be forwarded to the Corps. The minimum qualifications of contractor Quality Control personnel are far in excess of what is actually required which results in a waste of taxpayers' money.

"So much extraneous paperwork is generated from this requirement, in many cases, that any jobsite manpower savings realized by the Government are, in many cases, offset by the additional staffing required by the contractor and the Government to process this excessive amount of paperwork. The requirements of this paragraph should be streamlined to eliminate undue and excessive paperwork along with the duplication of various responsibilities now befalling both the contractor and the Corps."

DISCUSSION:

1. Source. The primary source of the regulatory authority for Contractor Quality Control is DAR 7-602.10(a), Contractor Inspection System (1964 November). It states:

> "The Contractor shall (i) maintain an adequate inspection system and perform such inspections as will assure that the work performed under the contract conforms to contract requirements, and (ii) maintain and

make available to the Government adequate records of such inspections."

This clause is a mandatory DAR clause which means the districts must use it verbatim. However, the clause is so general that actual implementation in the field resulted in confusion and a wide variance in application. OCE has promulgated guidance to the field in the form of ER 1180-1-6. Besides prescribing detailed guidance about the Corps' Contractor Quality Control program, ER 1180-1-6 also contains a sample or "proposed" SP covering quality control for divisions and districts to use in construction contracts. It is a five-page clause covering the following subjects: coordination meeting, quality control plan, quality control organization, submittals, control tests, defective work, completion, and documentation.

One immediate question is whether the proposed SP must be used verbatim. It appears it does not, as ER 1180-1-6 indicates its purpose is to provide "general policy and guidance." Also, the regulation repeatedly mentions the task of taking into account the particular requirements of a contract, thus indicating authority for local fine-tuning. However, the regulation also says that the Contracting Officer "must" consider the guidance given the factors listed in the "proposed" SP. This language, combined with the specificity of the proposed SP, could discourage a Contracting Officer from substantive fine-tuning. Also, ER 1180-1-6 applies to all construction projects of more than $10,000, which includes practically all projects.

2. Frequency of complaint. Many districts complained of the quality control program. Every complaint was directed not at the DAR clause, but at the SP that implements the clause. The district complaints tend to fall into one of two categories. Complainants 2, 4, 5, 6, and 7 refer at least partly to the lack of sizing the clause to the project. More specifically, the full arsenal of protective devices, reporting requirements, etc. apply to all projects, from $10,000 to $10 million. For smaller projects, many districts recommend an abridged or condensed program. Complainants 2, 3, and 6 seem to say that it is unrealistic or impractical to have the contractor police himself. They seem to favor more vigorous inspection by the Corps. One district complainant wants to return to the days when the 39-word DAR clause was the only guidance for quality control.

Contractor complaints are similar to those of the districts, except that the contractors believed quality control can be performed better with less Corps intervention, and that quality assurance, not quality control, needs more emphasis.

3. Uniformity of individual district clauses. Almost every district used the "proposed" SP in ER 1180-1-6 verbatim, except for the fill-in-the-blank portions. This has concerned some OCE personnel who feel districts are not using the "latitude given by the ER 1180-1-6 to modify or add to the specific requirements so that they are tailored precisely to the quality control requirements of each project." In reviewing the district master list of SPs, however, very little evidence was found of liberal editing directions to the "proposed" SP.

CONCLUSIONS:

This is one of the most controversial and possibly most misunderstood clauses in Corps contracts. Neither the districts nor the contractor feel comfortable with its provisions. Both question whether, as presently implemented, its benefits justify its cost. Under present guidance, it is doubtful that the districts will perform significant job-tailoring of the clauses used to implement the requirement. Consequently, action at OCE level in the form of definitive but flexible guidance is necessary. It is not within the scope of this study to make judgments on the validity of the Contractor Quality Control concept.

TOPIC 2: ACCIDENT PREVENTION (SAFETY)

REFERENCES: DAR 7-602.42, EM 385-1-1, EM 385-1-5

COMPLAINTS:

Corps District/Division Comments

1. "Requirements that may have questionable benefit: job hazard analysis; Corps representative attending a safety meeting with the contractor and subcontractor; requiring minutes of safety meetings to be transmitted to the Corps; submission of OSHA log to Corps; requirement for contractor to provide a safety sign, particularly on contracts under $500,000 or less than 6 months duration. A combination project and safety sign might suffice. Minimize the administrative burden on the contractor with respect to developing and managing his safety program and place more emphasis on contractor's actual field operations and safety record."

2. "GP-52 Accident Prevention. A plan is required to be submitted by contractor. It is recommended that it be deleted and a letter be substituted indicating compliance with EM 385-1-1 safety and health requirements and OSHA. This letter to be signed by an officer of the corporation."

3. "The general safety requirements specifies that a licensed engineer design all safety guard rails in elevated work areas. This has been an extra cost item for the most part. Granted, some extremely high areas may require this degree of assurance, but most of our situations occur in areas where standard rails can be used. The ultimate approval rests with the Corps Safety Office regardless of who designs the railing."

4. "Require compliance with OHSA standards only. Combine project and safety sign. Eliminate requirement for submittal of a plan for monitoring asbestos-contaminated breathing atmospheres."

Contractor Comment

"It should be noted that EM 385-1-1, July 1, 1977 edition, by reference was made a part of the specifications. That edition of the EM has been superseded by the April 1, 1981 edition; however, this SP contains eight (8) pages of requirements, some of which are duplications of the EM requirements and some of which are not applicable to the type of work under the contract (e.g., subparagraph h(2)). In other words, these SP requirements were not tailored to fit the safety needs of the contract work and merely served to clutter the specifications with unnecessary verbiage.

"These SP safety provisions are typical of those in current specifications issued by the district and the other districts in division even though the EM 385-1-1 of April 1, 1981 is by reference made a part of all contract specifications.

"The safety and health standards and requirements as contained in EM 385-1-1 are adequate to cover contract work hazards, and according to the manual, supplementation is not authorized within the Corps except as published by HQDA (DAEN). The provisions as contained in this SP appear to be a

supplementation of the manual. Whether such has been authorized by OCE is not known; however, they are objectional and burdensome because among other reasons, they are not consistent with requirements of districts in other adjacent divisions wherein we perform work. The inclusion of these SP requirements results in additional time and costs to the contractor to move personnel and equipment from other Corps divisions into districts in this division. For example, these SP requirements require physical exams for all operators on the job site. In this regard, the manual requires only that all operators of hoisting equipment used for hoisting personnel shall have an annual physical exam by a licensed physician. Obviously, this particular SP requirement imposes a greater burden in both time and expense. This is true when there is a large turnover of operators, particularly under conditions with short work seasons and on jobs which are heavy-equipment intensive. These SP requirements also require additional and special protective devices on equipment not required by the manual. This results in an additional burden to the contractor when moving heavy equipment into the division area involving additional costs and time required for mobilization.

"It is our position that significant savings could be realized by the Government as well as the contractor by eliminating these SP requirements, and we recommend such action be taken."

"The Corps Safety Manual, EM 385-1-1, by reference is made a part of the specifications. Some Corps districts, however, are issuing safety requirements far in excess of those in EM 385-1-1. AGC believes that it would be to the Government's advantage not to specify requirements beyond EM 385-1-1."

DISCUSSION:

1. Source. The primary source of regulatory authority for Accident Prevention is DAR 7-602.42. It states:

"7-602.42 *Accident Prevention.*

(a) Normally the following clause concerning safety controls, records, reports and corrective action to be taken shall be inserted.

Accident Prevention (1981 Aug)

(a) In order to provide safety controls for protection to the life and health of employees and other persons; for prevention of damage to property, materials, supplies, and equipment; and for avoidance of work interruptions in the performance of this contract, the Contractor shall comply with all pertinent provisions of Corps of Engineers Manual, EM 385-1-1, dated 1 April 1981, entitled "Safety and Health Requirements," and will also take or cause to be taken such additional measures as the Contracting

Officer may determine to be reasonably necessary for the purpose.

(b) The Contractor will maintain an accurate record of, and will report to the Contracting Officer in the manner and on the forms prescribed by the Contracting Officer, exposure data and all accidents resulting in death, traumatic injury, occupational disease, and damage to property, materials, supplies, and equipment incident to work performed under this contract.

(c) The Contracting Officer will notify the Contractor of any noncompliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

(d) Compliance with the provisions of this clause by subcontractors will be the responsibility of the Contractor.

(End of clause)

(b) In contracts involving work of long duration or of hazardous character, the following paragraph (e) will be added to the above clause:

(e) Prior to commencement of the work the Contractor will:

(1) submit in writing his proposals for effectuating this provision for accident prevention;

(2) meet in conference with representatives of the Contracting Officer to discuss and develop mutual understandings relative to administration of the overall safety program."

This clause is a mandatory DAR clause, which means the districts must use it verbatim. The interesting feature of this clause is that it begins by saying "normally the following clause...shall be inserted," indicating there are

instances wherein this "mandatory" clause does not have to be used. There is, however, no discussion or criteria as to when to use it or not.

In contracts of "long duration" or of "hazardous character," the Contractor will submit an accident prevention proposal prior to commencement of work.

2. Frequency of complaint. Most districts expressed the opinion that, in general, all the safety regulations found in EM 385-1-1 and other sources should not apply equally to all projects. Rather, size, complexity, and the hazardous nature of the work should be considered in deciding the degree of regulation, with small, nonhazardous jobs being subject only to an abridged or short-form set of safety requirements.

Only some districts complained about GP-52. Of those that did, they applied the "accident prevention" plan to all projects, not just those "of long duration or of hazardous character."

One district complained about guard rails.

More than one district complained about the requirement to have a safety sign separate from a project sign. Only one district suggested the elimination of EM 385-1-1 in favor of OHSA standards.

3. Uniformity of individual district clauses. Some districts merely referenced EM 385-1-1, while others had as much as 20 pages of selected, or edited, requirements of EM 385-1-1, thus reflecting the lack of direction in DAR 7-602.42.

The districts who complained about the over-inclusiveness of the accident prevention proposal requirement did not limit the requirement to only large contracts, but rather required it of all projects. This policy appears consistent with EM 385-1-5, which requires accident prevention proposals for all projects. Other districts have set a threshold (usually $100,000) below which accident prevention proposals are not required. This appears consistent with DAR 7-602.42, which requires an accident prevention proposal only with projects of "long duration or of hazardous character."

Only one district requires a licensed engineer to design guard rails. The wording of that district's master specification reveals the requirement for a "licensed engineer" is "in addition to the requirements of EM 385-1-1"; thus it was an additional requirement added by the district alone and not any higher authority.

Many districts require a separate safety sign. It should be noted, however, that no reference to a stand-alone safety sign could be found in the DAR, OHSA regulations, EM 385-1-1, or EM 385-1-5.

CONCLUSIONS:

From district Complaints 1 and 2 and contractor Complaint 1, it appears there is a conflict in the DAR clause. Judging from the inconsistency among districts, this conflict has created considerable confusion. For example, the EM manual specifies that an accident plan will be submitted, yet the DAR

clause leaves this as an option. District masters reflect this inconsistency. Certainly the use of reference standards play an important part in modern specifications, but care must be taken not to create these types of conflicts and redundancies. As stated in the Construction Specification Institute's Manual of Practice, there has been a failure to prevent "...statements that are redundant and create conflicts. They may lead to confusion and misinterpretation..." It appears that it is just what has happened at both at the OCE and district levels.

The one district that complained of having a licensed engineer design guard rails imposed that limitation, unnecessarily, on itself.

It appears there is no requirement to have a safety sign separate from a project sign.

TOPIC 3: CONTRACTOR-PREPARED NETWORK ANALYSIS SYSTEM

REFERENCES: DAR 7-604.7, ER 1-1-11, and ER 415-1-303

COMPLAINTS:

Corps District/Division Comments

1. "...(unnecessary) requirement for providing elaborate progress schedules and updating of same... tailor progress reporting systems to size and complexity of project."

2. "The GP clause provides all that is needed for scheduling progress. We should not require more unless we need more. The GP clause permits the contractor to use NAS if he so desires. NAS is a good tool, but a tool you can't use or won't use is worthless. Let the contractor choose the tool he can use and furnish us a tool we must have."

Contractor Comments

1. "C.P.M. While we feel that the general approach of the C.P.M. is good and very helpful, we feel that some minor revisions would offer the contractor some great savings.

With the present C.P.M. set-up there are a lot of various sorts required which are never used on most of the smaller projects. Due to construction cost being so high you can reach $5 million on a project very easily and still not have a very complicated job. With that in mind you could use a time scaled pert chart with 100 to 200 activities, and a simple I.J. run and be just as effective in both a timely completion and proper scheduling of the project. We have used this on many projects not requiring C.P.M., with as many as 400 activities, giving us the benefit of the C.P.M. without the cost. In fact, there are no jobs on the attached list where this system would have been just as effective and in many cases it would have been more effective.

"With the widespread use of the microcomputer by many of the small businessmen today, with this approach if he would so choose a contractor could even set up to completely do all the scheduling in-house offering the following advantages.

"a. A 200 to 400 activity requirement running 18 months will cost somewhere between $3,000.00 and $4,000.00 for a set up. This could be completely eliminated.

"b. Updates cost between $150.00 and $250.00 per month, this could also be completely eliminated.

"c. At present it takes approximately 10 days to get the C.P.M. back once they are called in for an update, often missing the Government cut-off dates, and therefore holding up payment. Run in-house, the contractor would have total control, again eliminating late payments.

"d. By doing his chart the contractor is more aware of the schedule, both at the outset and during construction, therefore giving him better job

control. Often where C.P.M. is done outside, the contractor doesn't play a large enough part in the scheduling and is therefore never used.

"e. Even if the contractor chooses to send out the scheduling under the condensed version, he would still see a good savings both in the set-up and monthly updates.

"f. The savings on one project such as noted in (a) (approximately $7,000.00 to $8,500.00) would be more than enough to set up a microcomputer system."

2. "Network Analysis System. It is unfortunate that a very good tool for construction control has become a method of legal documentation. Neither the Government nor the contractor can let the schedule perform its true function. I offer no solution. The normal 10 to 15 day period after award for a 60-day schedule and the 40-day period after award for the complete schedule do not allow enough time for meaningful input by all parties engaged in the construction, particularly on a complex project. The usual requirement of making approved logic and activity duration revisions for changes can delay resolution of changes with its attendant cost to the contractor and his subcontractors of financing the costs of changes until agreement."

3. "While the use of a network analysis system on projects of sufficient complexity may be beneficial to both the contractor and the Government, blanket use of it on projects of varying complexity is unnecessary and uneconomical. The criteria for making a determination on utilizing such network analysis systems for various projects should not follow an objective set of guidelines, but instead should entail a subjective study of the real complexity of each individual project.

"In many contracts, schedule requirements have become so detailed that contractors only furnish whatever paperwork is required by the Corps. Most of that submitted is of little use to the contractor, and we question the value of it to the Corps. Further, payment estimates that are tied to network analysis are very difficult to accomplish and usually result in delayed payment to the contractor."

DISCUSSION

1. Source. The primary source of regulatory authority for Contractor Prepared Network Analysis System is DAR 7-604.7. DAR 7-604.7 is a long clause. The relevant part states:

> "7-604.7 *Contractor-Prepared Network Analysis System.*
>
> "(a) A clause substantially as set forth in (c) below is authorized for use in accordance with instructions in (b) below. Since the clause is broad in scope, modifications thereto will be necessary to accommodate individual project requirements...

"(c) *Contractor-Prepared Network Analysis System.*

CONTRACTOR-PREPARED NETWORK ANALYSIS SYSTEM (1968 APR)

"The progress chart to be prepared by the Contractor pursuant to the General Provisions entitled "Progress Charts and Requirements for Overtime Work" shall consist of a network analysis system as described below. In preparing this system the scheduling of construction is the responsibility of the Contractor. The requirement for the system is included to assure adequate planning and execution of the work and to assist the Contracting Officer in appraising the reasonableness of the proposed schedule and evaluating progress of the work.

"(a) An example of one of the numerous acceptable types of network analysis systems is shown in Appendix I of Corps of Engineers Regulation ER 1-1-11 entitled "Network Analysis System," single copies of which are available to bona fide bidders on request. Other systems which are designed to serve the same purpose and employ the same basic principles as are illustrated in Appendix I will be accepted subject to the approval of the Contracting Officer..."

DAR 7-604.7 is an optional clause which does not have to be used verbatim. On the contrary, it could be said to mandate local editing.

ER 1-1-11, sets forth the Corps' policy on "the use of any of the various network management systems...and establishes procedures for use of a system compatible with these methods." In its Appendix A, it sets forth a recommended system -- a system the DAR specifically approves. Perhaps most important, ER 1-1-11 states that:

"...the special provision of the specifications must be carefully edited for the specific job. This editing is not only permissable but is mandatory as stated in DAR - 604.7(a)...The DAR clause is broad in scope allowing requirement of many special features which can be useful on some projects but not on others.... The Network Analysis System Guide includes specific recommendations for editing the DAR clause for the specifications for most construction contracts."

A review of the districts' master lists, however, reveal no instructions for editing DAR 7-604.7.

ER 415-1-303, published in 1977, provided additional Corps policy and recommended procedures for scheduling and controlling construction progress on construction contracts. The document attempted to clarify OCE guidance in using network analysis and to reduce the tendency to overspecify NAS. Additionally, it provided a minimum guide specification for NAS.

2. Frequency of complaint. Two districts complained. One complaint seemed to indicate the GP (DAR 7-604.7) is all that is needed — nothing more. The other complaint indicated that the network requirements should be harmonious with the size and complexity of the project. Contractors generally concurred that the network requirements are often too large and burdensome for smaller projects.

3. Uniformity of individual district clauses. All districts uniformly adopted the DAR 7-604.7 language with little change. Also, all districts failed to provide any significant editing instructions in their master list of provisions. Thus, unless the actual editor of the clause(s) at the district level is familiar with ER 1-1-11 and ER 415-1-303, significant editing probably is not done. In an actual contract one district submitted, however, there was evidence of editing.

CONCLUSIONS:

In general, districts are not tailoring the NAS scheduling requirements to the needs of the contract. The prevaling tendency is to specify more than is needed or can be successfully used by either the Corps or the contractor. Consequently, the effort required to manage the NAS begins to exceed available resources, so it degenerates to only a means of accomplishing progress payments. The NASs do not have to be big to fulfill a valuable management need. Neither the DAR nor ER 1-1-11 require large, unwieldy networks for any size project. However, the NAS-specifying habits of many districts indicate they have a different perception of the guidance contained in those documents.

TOPIC 4: SUBMITTALS AND CONTROL

REFERENCES: DAR 7-602.54, ER 415-1-10

COMPLAINTS:

Corps District/Division Comments

1. "Shop drawings should be required only for those items which must have Government approval, i.e., extensions of design, deviations, or equipment whose compatibility with the entire system must be checked. These shop drawings should receive timely Government review and approval. In addition, industry should come up with and maintain standards for many construction materials and equipment similar to those that exist now for lumber products. The Government would then specify by standard (i.e., class, grade, or the like), and shop drawings would be unnecessary."

2. "Requirements considered by contractors to be an unnecessary burden:

- Requirement to provide a submittal control form.

- Requirement to maintain record drawings and submission of same.

- Requirement to submit shop drawings for items other than extension of design.

- Submission of reports, including OSHA logs, and minutes of meetings pertaining to safety and submission of a formal safety program."

3. "(The Districts recommend that we:)

- Reduce the requirement for submission of data dealing with contractor's procurement activity, but still require copies of purchase orders for critical materials and equipment.

- Continue to require contractor maintenance of as-built documents except for those changes initiated by Government change orders.

- Continue to require contractor submission of shop drawings, etc. for all materials and equipment as Government review frequently identifies noncompliance and such early identification can serve to avoid additional cost to the contractor.

- Continue to require submission of environmental protection plan."

4. "(District considers) contractor submittal of color boards for Air Force project (unnecessary); submittal and approval of color boards is a time-consuming and costly process. Generally it appears the color board should be retained for major projects only. District experience indicates that for smaller projects an elaborate color board submittal is not required and in some cases no color boards are needed at all. We feel that for a properly designed project, the color schedule contained in the plans and the

requirement for sample submittals are sufficient to insure proper control of the finished materials. A more selective use of the color board requirement appears to be in the best interest of the Government."

5. "We believe that the contracting industry feels that the contractor's submittal paragraph contains excessive paperwork requirements. There have been various contractor-suggested methods of reducing paperwork such as eliminating submittal of monthly updating of the Shop Drawing Register and the Construction Schedule and Progress Chart. They suggest submittal of initial schedule and quarterly or semi-annual schedule revisions. The contractors insist that there are projects less than $100,000 where the paperwork requirements are the same as the large multimillion dollar projects. Most of the time the project is completed in a shorter time than the paperwork can be done."

Contractor Comments

1. "Submittal of shop drawings. The requirement for a specific size drawing cannot be enforced and should be deleted. Additionally, should a specific size be required, specify standard-size paper rather than odd sizes that cannot be purchased."

2. "The Special Provision is set up properly, but the sheer volume of submittals required borders on the ridiculous. The number of copies is not the issue; it is the volume of submittals required. The major submittals are understandable. But data sheets and samples for every item such as caulking, masonry ties, expansion joints, curing compounds, etc. is totally unnecessary. After all, the material is clearly specified. The contractor has an onsite quality-control man 100 percent of the time and the Corps has fulltime inspectors to insure the contractor is performing properly.

"The submittals required could be cut in half with no effect on quality of construction and a decrease in direct job cost overhead."

3. "This paragraph requires the contractor to submit many sets of shop drawings for approval along with several additional sets furnished to the Corps at the completion of the project. This paragraph also requires that each shop drawing be stamped by the prime contractor indicating that his Quality Control staff has reviewed the drawings and finds that the data submitted meets the contract requirements.

"Most of the shop drawings submitted to the Government are used for record-keeping purposes and many are eventually discarded. Much paperwork and labor are wasted due to this requirement by the Corps. AGC believes that these wasteful requirements should be significantly reduced if not eliminated."

DISCUSSION:

1. The primary source of regulatory authority for Submittals and Control is DAR 7-602.54. It states:

> "1. The term 'shop drawings' includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the contract.
>
> "Upon the completion of the work under this contracct, the Contrator shall furnish three complete sets of prints of all shop drawings as finally approved. These drawings shall show changes and revisions made up to the time the equipment is completed and accepted.
>
> "Upon the completion of the work under this contract, the Contractor shall furnish a complete set of reproducibles of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the equipment is completed and accepted.
>
> "2. If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate this approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate his approval or disapproval of the shop drawings and if not approved as submitted shall indicate his reasons therefore. Any work done prior to such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with 3 below.
>
> "3. If shop drawings show variations from the contract requirements, the

Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation(s), he shall issue an appropriate contract modification, except that, if the variation is minor and does not involve a change in price or in time of performance, a modification need not be issued.

"4. The Contractor shall submit to the Contracting Officer for approval seven copies of all shop drawings as called for under the various headings of these specifications. Six sets of all shop drawings will be retained by the Contracting Officer and one set will be returned to the Contractor."

This is a mandatory DAR clause which should be used verbatim. It is, therefore, a GP. ER 415-1-10 provides guidance to districts on how to control the flow of submittals. They provide an "example" SP in the regulation which states:

"Within 30 days after date of receipt of notice to proceed, the Contractor shall submit to the Contracting Officer, in duplicate, submittal control document (ENG Form 4288) listing all submittal items. For example, those items listed will include shop drawings, manufacturer's literature, certificates of compliance, material samples, and guarantees. The scheduled need dates must be recorded on the document for each item for control purposes. In preparing the document adequate time (minimum of 15 days) will be allowed for review and approval and possible resubmittal. Scheduling shall be coordinated with the approved progress schedule. The Contracting Officer will supply ENG Forms 4288 to the Contractor to include the above information. The schedule shall not relieve the Contractor of his obligation to comply with all the specification requirements for the items on the schedule. The Contractor's Quality Control representative shall review the listing at least every 30 days and take appropriate action to maintain an effective system. Copies of updated or corrected listings shall be submitted to the Contracting Officer at least every 60 days in the quantity specified. Payment will not be made for any material or equipment which does not comply with contract requirements."

2. Frequency of complaint. There is a general consensus that there is simply too much paperwork in Government procurement in terms of submittals, especially with smaller projects. This is a burden not only on the contractor, but also on the Government as it must receive, review, and maintain the submittals.

3. Uniformity of individual district clauses. In most cases, district offices have expanded the text of the above SP beyond the example provided to either tailor the text when Network Analysis is used, or in at least one case, to bring together all submittal requirements (e.g., shop drawings, certificates of compliance, warranties, testing, safety, CQC, preconstruction conference, network analysis submittals) into one Division 1 section. In general, this section reflects only the procedures, format, and number of copies of each submittal required, not which submittals are required. The actual submittals required are specified in each TP section included in the contract. Current TPs do little to encourage extensive editing of the submittal requirements.

Figure B1 will help the reader understand the submittal requirements on the average Corps project. However, this list does not reflect the actual amount of paper that is processed, often in five or six copies.

CONCLUSIONS:

In reviewing the submittals required for an average project (see Figure B1), there is no question that a tremendous amount of paper changes hands. Certainly, the suggestion to limit submittals to extensions of design could reduce much of this burden. However, in using Government specifications that cannot name specific products, it is not clear that the appropriate product will always be procured. The submittal review provides an opportunity for feedback to verify that the contractor (and suppliers) have the correct product selected before it is delivered to the job site. Errors allowed to go undetected this late into the project can have disasterous effects on the schedule as well as on the overall quality of the project.

Aside from the submittals associated with the approval of construction materials and methods, there is a plethora of other paperwork burdens on Government contractors. When viewed individually by the several proponents, they appear to be rather harmless; but collectively they represent an unreasonable burden. Unfortunately, the total picture is not apparent to the individual proponents.

Bidder Paperwork Requirements*

Documents required to bid on a Corps job:

1. Bid Form

2. Bid Bond

3. Pre-award information on dredging contracts if called for by the Contracting Officer.

4. Plant and Equipment schedule if included by the Contracting Officer (generally not required)

Documents required from low bidder:

1. Financial Statement

2. List of contracts underway

3. Credit references

*ASPR references the DAR in this figure.

Documents Required By
General Provisions

Clause No.	Title	Remarks
7	Payments to Contractor	Submit monthly a breakdown on each item for pay purposes (ASPR-7-602.13)
12	Permits and Responsibilities	Obtain permits and licenses where applicable (ASPR 7-602.13)
15	Shop Drawings	Submit 4 to 6 copies of shop drawings as called for by SP and TP sections (ASPR 7-602.54(a))

Figure B1. Submittal Requirements.

Clause No.	Title	Remarks
55	Accident Prevention	Submit safety program prior to commencement of work. (ASPR 7-602.42(a) and (b))
58	Minority Business Enterprises Subcontracting Program (applicable to contracts including subcontracts of $500,000 or more)	Establish and conduct a program which will enable minority businesses to be considered fairly as subcontractors or suppliers. (1) Designate a liaison officer to administer program. (2) Maintain records and submit report of program not more often than quarterly. (ASPR 7-104.36(b))
59	Affirmative Action for Disabled Veterans and Veterans of Vietnam Era	Submit at least quarterly on program to hire veterans. (ASPR 7-103.27)
61	Affirmative Action for Handicapped Workers	Post bulletin in conspicuous place and notify labor union of obligations to hire the handicapped. (ASPR 7-103.28)
62	Clean Air and Water (contracts exceeding $100,000)	Agrees to comply with Sec 114 of Clean Air Act 42 U.S.C. and Sec 308, Federal Water Pollution Control Act (33 U.S.C. 1251) relating to inspection, entry, reports, and information. Comply with a schedule or plan ordered or approved by court, EPA, or Water Pollution Control Agency. (ASPR 7-103.29)
72	Progress Charts	Submit within 5 days after commencement of work Progress Chart for approval. (ASPR 7-603.48)

Figure B1. (Continued).

Clause No.	Title	Remarks
74	Standard Federal Equal Employment Opportunity Contruction Contract Specifications (Executive Order 11246)	The Contractor shall implement specific actions as required by para 7a through P of this clause in regard to hiring and training minorities and women. Maintain records of all actions in this regard and report as required by the Government.

Documents Required
by Special Provisions

Clause No.	Title	Remarks
SP-4	Required Insurance	Prior to commencement, furnish certificate of workmens compensation, general liability, and auto liability insurance.
SP-6	Shop Drawings	Shop drawings shall be submitted in accordance with the procedures listed below and in the Technical Provisions Section entitled "Contractor Quality Control System."
SP-8	Salvage Materials and Equipment	The contractor shall maintain adequate property control records for all materials or equipment specified to be salvaged.
SP-11	Identification of Employees	The contractor shall be responsible for furnishing to each employee and for requiring each employee engaged on the work to display such identification as may be approved and directed by the Contracting Officer.
SP-14	Quantity Surveys (DAR 7-603.50(b))	The contractor shall make such surveys and computations as are necessary to determine the quantities of work performed or placed during each period for which a progress payment is to be made.

Figure B1. (Continued).

Clause No.	Title	Remarks
SP-15	Network Analysis System	Within 10 days after NTP, submit preliminary NAS; in 40 days submit NAS; submit up-to-date NAS monthly.
SP-16	Certificate of Compliance (ECI 7-670.3)	Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in the number of copies specified in the Technical Provisions Section, "Contractor Quality Control System."
SP-18 and TP-1B	Contractor Quality Control System	Furnish plan within 5 days after NTP. Daily reports and other documentation are required.
SP-19	Accident Prevention Peplanning	Requires contractor to attend a meeting and prepare and submit phase accident plans.
SP-20	Submittal Register for All Required Submittals	Submit within 21 days after NTP. REvised or updated register shall be submitted every 60 days.

Documents Required
by Technical Provisions
(or Special Provisions in Some Districts)

Clause No.	Title	Remark
TP-1A Para 5	Project Safety Sign	Contractor shall furnish and erect a project sign ano safety sign.
TP-1B Para 5	Daily Records	Requires contractor to furnish daily QC reports, etc.

Figure B1. (Continued).

Clause No.	Title	Remarks
TP-1C	Warranty of Construction	Provide information on whom to contact for warranty. Also, provide any warranties the sub-contractors, manufacturers, or suppliers would give in normal commercial practice.
TP-1D Para 1	Electrical Work	Requires contractor to submit a plan for work on energized lines.
Para 5	Asbestos	Requires submittal of a plan for monitoring asbestos-contaminated breathing atmospheres.
TP-1E	Environment Protection	Prior to commencement of work, submit plan for environmental pollution control. Within 30 days, submit plan of all temporary roads, embankments, borrow areas, plant areas, etc., and their restoration plan.
TP-1F	As-Built Drawings	Provide three full-size drawings of all as-built conditions plus one set of 35-mm microfilm of approved as-builts.
TPs	Shop Drawings	Shop Drawings Register for a typical Civil Works project is attached.

Figure B1. (Continued).

TOPIC 5: PROGRESS PAYMENTS

REFERENCES: DAR 7-602.7, EC 715-2-31

COMPLAINTS:

Corps District/Division Comments

"Some complaints received are in reference to withholding of payment estimates exceeding 125 percent of Government estimates. Contractors contend that Government estimates may be in error, but they must suffer the hardships caused by the Government error. Contractors have stated that this clause should not be activated unless there is an obvious front-end loading of the contract bid price. Others believe that the clause is unnecessary because there are available remedies already in the contract for unbalanced bidding."

Contractor Comments

"We are unalterably opposed to the use of this clause. We believe the clause is unnecessary because there are available remedies already in the contract to bid balancing. The clause suggests that the Government estimates are accurate and proper and the clause undermines the unit price concept in bidding. We are aware that for the present, you are required to use this clause in your Civil Works contracts. The clause as written is discretionary since it contains the language the Contracting Officer may require the contractor to produce costs data to justify the costs of the bid item. We do not believe that this clause should come into play unless there is obvious front-end balancing and believe that the "may require" is intended to provide this leeway. We also feel that if the clause is enforced on a contract that a contractor should be paid up to 125 percent of the Government costs estimate on bid items where the contract price is equal to or less than the Government's cost estimate. We again urge that Contracting Officers utilize this clause with extreme caution."

"This special provision clause, which is contained in Civil Works projects $250,000 or more in value, permits the Contracting Officer to withhold the amount which is in excess of 125 percent of the Government estimate for a line item. AGC believes that this special provision is the most onerous of all special provisions as it denies a contractor the needed funds which he has estimated are needed to accomplish a line item. Additional views by AGC are contained in the...reports of the AGC Corps of Engineers Committee."

DISCUSSION:

1. Source. The primary source of regulatory authority for Progress Payments is DAR 7-602. It states:

> "(a) The Government will pay the contract price as hereinafter provided.
>
> "(b) The Government will make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates approved by the Contracting

Officer. If requested by the Contracting Officer, the Contractor shall furnish a breakdown of the total contract price showing the amount included therein for each principal category of the work, in such detail as requested, to provide a basis for determining progress payments. In the preparation of estimates the Contracting Officer, at his discretion, may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site may also be taken into consideration (1) if such consideration is specifically authorized by the contract and (2) if the Contractor furnishes satisfactory evidence that he has acquired title to such material and that it will be utilized on the work covered by this contract.

"(c) In making such progress payments, there shall be retained 10 percent of the estimated amount until final completion and acceptance of the contract work. However, if the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, he may authorize such payment to be made in full without retention of a percentage. Also, whenever the work is substantially complete, the Contracting Officer shall retain an amount he considers adequate for the protection of the Government, and, at his discretion, may release to the Contractor all or a portion of any excess amount. Furthermore, on completion and acceptance of such separate building, public work, or other division of the contract, on which the price is stated separately in the contract, payment may be made therefor without retention of a percentage.

"(d) All material and work covered by progress payments made shall thereupon become the sole property of the Government, but this provision shall not be construed as relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work, or as waiving the right of the Government to require the fulfillment of all of the terms of the contract.

"(e) The Contractor shall, upon request, be reimbursed for the entire amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after furnishing evidence of full payment to the surety.

"(f) Upon completion and acceptance of all work, the amount due the Contractor under this contract shall be paid upon the presentation of a properly executed voucher and after the Contractor shall have furnished the Government with a release of all claims against the Government arising by virtue of this contract, other than claims in stated amounts as may be specifically excepted by the Contractor from the operation of the release. If the Contractor's claim to amounts payable under the contract has been assigned under the Assignment of Claims Act of 1940, as amended (31

U.S.C. 203, 41 U.S.C. 15), a release may also be required of the assignee." (Underlining added for emphasis.)

EC 715-2-31 states:

"PROGRESS PAYMENTS: Progress payments made pursuant to the PAYMENTS TO CONTRACTOR Clause for any item of work in the bid schedule shall be based on the contract unit price or lump sum amount set forth in the bid schedule for that item of work. If the amount of the unit price or lump sum bid for any item of work is in excess of 125 percent of the Government estimate for such item, the Contracting Officer may require the Contractor to produce cost data to justify the price of the bid item. Failure to justify the bid item price to the satisfaction of the Contracting Officer may result in payment of an amount equal to 125 percent of the Government estimate for such bid item upon completion of work on the item and payment of the remainder of the bid item price upon final acceptance of all contract work."

DAR 7-602.7 is a mandatory clause that is to be used verbatim. It contains language, however, inferring there is local discretion as to what may be included, exact amount, and manner of progress payment. EC 715-2-31 is an example of the Corps' use of that discretion to draft an SP to deal with a special problem, i.e., unbalanced bidding in a unit price procurement wherein a bidder "loads" front-end items so that in reality the bidder receives accelerated progress payments. EC 715-2-31 was a test clause to run from 1 July 1980 to 30 June 1982 and applies only to projects exceeding $250,000.

2. Frequency of complaint: Only one district and one contractor complained about the "test clause."

3. Uniformity of individual district clauses: All districts cited both DAR 7-602.7 and EC 715-2-31 verbatim. No deviations were found.

CONCLUSIONS:

As stated in both the district and contractor comments, there are remedies elsewhere in the contract, specifically in DAR 7-602.7. EC 715-2-31 was not written to give the Contracting Officer additional remedies, but to define a consistent criteria for determining unreasonable "front-end loading" and to provide a standard procedure for resolution when it occurs. The DAR clause specifically gives the Contracting Officer the responsibility for determining unreasonableness and the addition of the EC clause prevents the Contracting Officer from being capricious in his or her determination. In reality, the Contracting Officer has probably always turned to the Government Estimate to determine what is "unreasonable" and the potential for an error is no greater now than before. A larger issue may be whether, even with this EC clause in force, the Contracting Officer can override the clause by using the DAR clause, in effect negating the percentage threshold. If this is the case, then the purpose of the clause is undermined and it becomes unnecessary verbiage.

The test period must determine if the 125 percent is a reasonable variance and if this clause, in fact, reduces the problem without hurting the majority of contractors that provide a fair and reasonable breakdown to the Contracting Officer.

TOPIC 6: PAYMENTS TO CONTRACTORS

REFERENCES: DAR 7-602.7; DAR 7-603.37; and ECI 7-603.37

COMPLAINTS:

Corps District/Division Comments

"...absence of requirement that Contracting Officer pay mobilization cost other than performance and payment bond. Consider provision which permits some compensation for contractor mobilization costs such as field office, environmental protection works, etc., but such cost should be limited to that indicated in original Government estimate or small percentage of bid price."

Contractor Comments

1. "Payment for Material Stored Offsite. Late in 1974, the Corps issued a circular which furnished guidance to contracting officers concerning payment for construction materials stored onsite and offsite. This circular stated that contracting officers should, to the extent consistent with protecting the Government's interest, take the cost of materials stored on and offsite into consideration in making progress payments under the contract and should encourage contractors to purchase materials at the earliest possible date to reduce inflationary pressures of higher material costs.

"AGC acknowledged that the Corps utilizes this clause extensively but noted that the Corps has not applied its provision to fuel stored offsite. AGC requested, since it is looking for mechanisms to protect against rapid price increases and to provide the most economical cost for a project, that the Corps liberalize its policy on payment for material stored offsite to include payment for fuel stored offsite.

"The Corps states that it has no prohibition against paying for fuel stored offsite and has at least on one occasion paid for such under the mobilization clause. Factors influencing a decision by the contracting officer to include in a contract specific authorization for fuel stored offsite would include (a) inflationary pressure, (b) forecast of supply, (c) potential perception of hoarding, (d) cost of storage, (e) assurance that such fuel would not be diverted for other uses.

"AGC pointed out that the contract already considers fuel as a construction material and therefore the Corps should pay for it when requested. The Corps agreed emphasizing that if the contract provides for payment of material stored offsite, then the Corps will pay for it. We recommend that more use of this clause be used in our Special Provisions."

"The requirement of a bonded warehouse for storage off-site does not seem necessary unless the contractor so deems it. Payment for material stored off-site does not relieve the contractor of the responsibility to furnish material should damage result. Quite often materials or equipment are too large to move to a bonded warehouse. Storage, plus the cost of the move, is added cost to the Government. The contractor would prefer to protect and store at suppliers' facilities.

"Further, AGC encourages the Corps to utilize the clause which permits payment for fuel stored off-site."

2. "SP-8, Mobilization and Demobilization. This paragraph is identified at the end of the last line as the Mobilization and Demobilization clause specified in DAR 7-603.37(b)(1).

"DAR 7-602.37(b) specifies two clauses, hereinafter referred to as the (b)(1) and/or the (b)(2) clause. According to the DAR instructions, the (b)(1) clause is to be used when it is expected that demobilization will occur at the time of contract completion or shortly thereafter, and the (b)(2) clause is to be used when there is likelihood that there will be a substantial time lapse between demobilization and final payment under the contract due to some contractual requirement such as clean-up or seeding of a disposal area.

"The significant difference between the two clauses is that under (b)(2) the amount of demobilization is to be paid upon completion of demobilization, while under (b)(1) it is not paid until the final payment under the contract; i.e., such amount is included in the final payment estimate.

"While the use of these two clauses is left to the exercise of some amount of discretionary judgment by the procuring district, the administration of the (b)(1) clause on the contract in question and other similar contracts has a real potential of imposing a financial burden on the contractor because of a substantial time lapse between demobilization and final payment under the contract. Final payment which is to include payment for the demobilization and for final quantity of work performed up to contract completion has in some cases been unduly delayed by the districts and through no fault on the part of the contractor. In such circumstances, which could not be anticipated or expected by the contractor, the contractor is denied the payment and use of a considerable sum of money due under the contract for demobilization alone, and which is a separate payment item under the contract.

"The point here is that all Corps districts should use the (b)(2) clause instead of the (b)(1) clause so as to eliminate the financial burden on contractors. To do so would, in our opinion, serve the interests of the Government and contractors."

3. "DAR 7-602.37(b) specifies two clauses for Mobilization and Demobilization: the (b)(1) and the (b)(2) clause. According to the DAR instructions, the (b)(1) clause is to be used when it is expected that demobilization will occur at the time of contract completion or shortly thereafter; and the (b)(2) clause is to be used when there is a likelihodd that there will be a substantial time lapse between demobilization and final payment under the contract due to some contractual requirement such as clean-up or seeding of a disposal area.

"While the use of these two clauses is left to the exercise of some amount of discretionary judgement by the procuring district, the administration of the (b)(1) clause contracts has a potential of imposing a financial burden on the contractor because of a substantial time lapse between demobilization and final payment under the contract. AGC encourages the Corps to use the (b)(2) clause instead of the (b)(1) clause so as to eliminate the financial burden on contractors."

DISCUSSION:

1. Source. The primary source of regulatory authority for Payments to Contractors is DAR 7-602.7. It states, in relevant part:

"PAYMENTS TO CONTRACTOR

"(a) The Government will pay the contract price as hereinafter provided.

"(b) The Government will make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates approved by the Contracting Officer. If requested by the Contracting Officer, the Contractor shall furnish a breakdown of the total contract price showing the amount included therein for each principal category of the work, in such detail as requested, to provide a basis for determining progress payments. In the preparation of estimates the Contracting Officer, at his discretion, may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site may also be taken into consideration (1) if such consideration is specifically authorized by the contract, and (2) if the Contractor furnishes satisfactory evidence that he has acquired title to such material and that it will be utilized on the work covered by this contract....

"(e) The Contractor shall, upon request, be reimbursed for the entire amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after furnishing evidence of full payment to the surety." (Underlining added for emphasis.)

Note that subsection (c) above, mentions only bonds. But DAR 7-603.37 states, in relevant part:

> "*Payment for Mobilization and Preparatory Work.* Insert one of the appropriate following clauses in contracts containing a separate bid item for mobilization and preparatory work with the approval of the Head of the Procuring Activity.
>
> (a) In major construction contracts requiring major or special items of plant and equipment or large stock piles of material which are considered to be in excess of the type, kind and quantity presumed to be normal equipment of a contractor qualified to undertake the work, insert the following clause....
>
> (b) In contracts involving major mobilization expense of plant, equipment and

materials other than such as are covered in (a) above, which is occasioned by the location or nature of the work; such as mobilization at an offshore location or towing a dredge to a remote location, insert one of the following clauses:

(1) When it is expected demobilization will occur at the time of contract completion or shortly thereafter, insert the following clause:...

(2) When there is a likelihood that there will be a substantial time lapse between demobilization and final payment under the contract due to such contractual requirements as clean-up or seeding of a disposal area, insert the following clause...."

Thus there is authority in the optional DAR 7-603.37 to pay mobilization costs in many situations. The problem is there is no authority to pay it in all situations. However, this refers only to a reimbursement payment. That means a contractor can anticipate mobilization costs and put them in the bid price. There is no prohibition on paying a contractor for mobilization work, rather there is only no authority to reimburse all contractors in all contracts for mobilization costs.

2. Frequency of complaint. Only one district complained of mobilization cost problems. One contractor complained of late payment of demobilization costs; and one contractor complained that payment was not being allowed for fuel oil stored offsite.

3. Uniformity of individual district clauses. Most districts had the mobilization clause payment options in their master list. In terms of actual practice, it appears some districts pay mobilization costs almost per course while at least one -- the one who complained -- rarely pays it or allows it as a separate item. Districts also allow payment for materials stored onsite and some allow payment for material offsite, but few allow payments for stored fuel oil.

CONCLUSIONS:

In reviewing these clauses, there appears to be no reason for not paying the contractor for the work required for mobilization when it occurs. Certainly, on larger contracts, the DAR recognizes this obligation and provides guidance for this payment.

Unfortunately, there is not a consistent Corps policy for partial payments of mobilization on smaller lump sum contracts where there are not separate bid items. DAR 7-602.7 provides little help in this regard, by leaving the discretion to the Contracting Officer. It is not clear how the contractor can be expected to give the Corps a "lean" price when the Corps leaves

unnecessary contingencies in the bidding documents. This problem appears to be a case of the Corps transferring unnecessary risk to the contractor.

The payment of demobilization costs when they are incurred appears reasonable, but only one contractor complained, so perhaps there are other factors bearing on this subject that have not been aired here.

TOPIC 7: PAYROLL AND BASIC RECORDS

REFERENCES: DAR 7-602.23(a)(iv)

COMPLAINTS:

Corps District/Division Comments

"Payrolls and Basic Records GP-33 requires Contractor to submit weekly a copy of all payrolls to the Contracting Officer. The reporting of payrolls creates mounds of paperwork. Is it feasible to have a statement signed by the Contractor for small projects indicating its payrolls are correct and complete and available for inspection by Contracting Officer representative and Department of Labor."

Contractor Comments

1. "Payrolls (Rated 5): Much money could be saved if instead of sending payrolls to the Government, they were required to be available for audit at anytime. On one 18-month project there is over 100 pounds of paper required to be submitted just for payrolls alone."

2. "Davis-Bacon Requirement: AGC supports the repeal of the Davis-Bacon Act or meaningful regulatory reform until such time as the ultimate reform-repeal has been accomplished.

"Accomplishment of Requirement For Affirmative Action To Ensure Equal Employment Opportunity: Since the reporting requirements under this provisions contribute nothing to the quality or timeliness of construction, such reporting requirements should be eliminated.

"Small and Small Disadvantaged Business Utilization Requirements: This statutorily required provision adds significantly to the cost of doing business with all Federal agencies, yet it does nothing to contribute to the quality or timeliness of the construction."

DISCUSSION:

1. Source. The primary source of regulatory authority for Payroll and Basic Records is DAR 7-602.23(a)(iv). It states:

> "Payrolls and Basic Records (1977 Dec)
>
> "(a) The Contractor shall maintain payrolls and basic records thereto during the course of the work and shall preserve them for a period of three (3) years thereafter for all laborers and mechanics, including apprentices, trainees, watchmen, and guards, working at the site of the work. Such records shall contain the name and address of each such employee, his correct classification, rate of pay (including rates of contributions for, or costs assumed to provide, fringe benefits), daily and weekly number of hours worked, deductions made and actual wages paid. (NOTE: Watchmen and guards

are reflected on payroll records for Contract Work Hours and Safety Standards Act purposes only.) Whenever the Contractor has obtained approval from the Secretary of Labor as provided in paragraph (c) or the clause entitled, "Davis-Bacon Act," he shall maintain records which show the commitment, its approval, written communication of the plan or program to the laborers or mechanics affected, and the costs anticipated or incurred under the plan or program.

"B. The Contractor shall submit weekly a copy of all payrolls to the Contracting Officer. The Government Prime Contractor shall be responsible for the submission of copies of payrolls of all subcontractors. The copy shall be accompanied by a statement signed by the Contractor indicating that the payrolls are correct and complete, that the wage rates contained therein are not less than those determined by the Secretary of Labor, and that the classifications set forth for each laborer or mechanic, including apprentices and trainees, conform with the work he performed. Weekly submission of the "Statement of Compliance" required under this contract and the Copeland Regulations of the Secretary of Labor (29 CFR, Part 3) shall satisfy the requirement for submission of the above statement. The Contractor shall submit also a copy of any approval by the Secretary of Labor with respect to fringe benefits which is required by paragraph (c) of the clause entitled "Davis-Bacon Act."

"(c) The Contractor shall make the records required under this clause available for inspection by authorized representatives of the Contracting Officer and the Department of Labor, and shall permit such representatives to interview employees during working hours on the job."

This is a mandatory DAR clause that must be used verbatim by districts. There is no subordinate agency regulation which affects and/or modifies it.

2. Frequency of complaint. Only one district and contractor complained; however, since this clause should be used as a GP rather than an SP, others might not have bothered to register their complaints since the study did not review the GP clauses.

3. Uniformity of individual district clauses. Districts are completely uniform in the use and language of this clause.

CONCLUSION:

Requiring weekly payroll submittals obviously creates more paperwork than mere periodic audits. A weekly or one-time statement of compliance would be adequate.

TOPIC 8: PHYSICAL DATA

REFERENCES: DAR 7-603.25

COMPLAINTS:

Corps District/Division Comments

"The paragraph contains language such as '...the Government will not be responsible for any interpretations or conclusions drawn therefrom by the Contractor, and localized variations characteristic of the subsurface materials of the region are anticipated and if encountered, such variations will not be considered as differing materially within the purview of Clause Differing Site Conditions of the General Provisions.' In view of the modifications and claims issued due to rock in this district, it would appear that this paragraph should either be revised so that it can be enforced, or it should be deleted from the specification."

Contractor Comments

"Some districts are issuing contract modifications with a paragraph that precludes later claims for time and costs unknown at the time of negotiation of the modification. This is an unreasonable and unacceptable burden on the contractor and the obvious contractor's solution of inclusion of a high estimate of compensable time extension and an allowance for unknown costs that may later be proven cannot be acceptable to the Government; neither provides the contractor's promised equity. The equitable solution for both parties to the contract is to allow actual costs and time extensions caused by the modification to stand the test of being proven when the unknown becomes known."

DISCUSSION:

1. Source. The primary source of regulatory authority for Physical Data is DAR 7-603.25. It states:

> "(a) All the information concerning local conditions pertaining to the performance of the contract work, which has been made available to the contractor should be referenced into the contract by completing the clause set forth in (b) below. Wherever test borings, analyses, or hydrographic data are to be made available to the Contractor, the wording of this special clause should be such as only to inform the Contractor as to the source of the data and where it may be examined.
>
> "(b) Contract Clause.
>
> "Physical Data (1965 Jan)
>
> "Information and data furnished or referred to below are furnished for the Contractor's information. However, it is expressly understood that the Government will not be responsible for any interpretation or conclusion drawn therefrom by the Contractor.

"(a) The physical conditions indicated on the drawings and in the specifications are the result of site investigations by (insert investigational methods used, such as surveys, auger borings, core borings, test pits, probings, test tunnels, etc.).

"(b) Weather Conditions. (Insert summary of weather records and warnings.)

"(c) Transportation facilities. (Insert the summary of transportation facilities accessible to project, availability, and limitations.)

"(d) .....(Insert other pertinent information.)"

This clause is an optional clause to be inserted where necessary. Also, it can be supplemented with field language as it has meaning only if project-specific data are provided by the district. Section (a) of the clause does state, however, that if boring data are provided, the district should only inform the contractor of the "source of the data and where it may be examined" in the contract. A review of a district clause, however, reveals that more information than this is provided. Following is a section of a district SP covering physical data which refers to a boring.

"(b) Borings: Information shown on the drawings at drill hole locations is from logs of drill holes, whereas information between drill holes is inferred. While the borings are representative of subsurface conditions at their respective locations and for their respective vertical reaches, localized variations characteristic of the subsurface materials of this region are anticipated and, if encountered, such variations will not be considered as differing materially within the purview of Clause 'Differing Site Conditions' of the GENERAL PROVISIONS. Graphic logs of borings located within the areas to be excavated under this contract are shown on the drawings. More complete logs of these borings (plus other borings at the site together with available cores from certain borings) are available for examination in the District Office."

The extra wording appears to be an attempt to exculpate or excuse the Corps from claims liability because of differing site conditions. Said claims are based on the black-letter common law principle that a contractor should not have to bear the risk of unforseeable events. Courts frown upon contract language that attempts to exculpate an owner's liability for costs due to unforeseeable subsurface conditions and tend not to enforce them.

2. Frequency of complaint. While only one district lodged a complaint, more than one district used the exculpatory language. The district that complained also used the language complained of in their SP. The contractor complaint is not aimed at the physical data clause, per se, but rather deals with exculpatory clauses in general. It was listed with this particular SP because the physical data clause, especially soil conditions, is the normal source of litigation over contractor claims of additional fees because of "changed or unknown conditions."

3. Uniformity of individual district clauses. Most districts were fairly uniform in their use of the clause, though some districts did give more detailed data than the others (one district gives two pages of weather information with such data as "wind movement" and "average relative humidity") and some did include other language, usually for exculpatory purposes.

CONCLUSION:

Some districts insist on exculpating themselves from liability for "unknowns" even though the exculpatory language is not authorized -- and, in fact, might be prohibited — by the DAR. These exculpatory clauses are usually not enforced by the courts. They probably increase cost, even though not enforceable, because they transfer risk to the contractor -- either the risk of bearing the increased cost or the cost of defeating the clause in court.

TOPIC 9: CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS

REFERENCES: DAR 7-602.45, ECI 7-602.45

COMPLAINTS:

Corps District/Division Comments

1. "...Requirement (of contractor) to check all drawings furnished immediately upon receipt as opposed to checking prior to accomplishment of work."

2. "...Five sets of plans and specifications are not adequate..."

Contractor Comments

1. "Construction Drawing (5). Most of the time we are only furnished 10 sets of construction drawings which means that there have been many instances where some of our subs have had to hold up on submittals and at times hold up getting started while we requested additional drawings. If we could obtain (1) set of reproducibles we would be able to avoid problems along this line.

"It would also make bidding projects a lot easier if this practice was available."

2. "Contract drawings, maps, and specification. On larger projects, provide one set of sepias, both large scale and reduced, in addition to the contact prints."

DISCUSSION:

1. Source. The primary source of regulatory authority for Contract Drawings, Maps, and Specifications is DAR 7-602.45. It states:

> "Contract Drawings, Maps and Specifications (1965 Jan)
>
> "(a) .....sets (five unless otherwise specified herein) of large scale contract drawings, maps and specifications will be furnished the Contractor without charge except applicable publications incorporated into the Technical Provisions by reference. Additional sets will be furnished on request at the cost of reproduction. The work shall conform to the following contract drawings and maps, all of which form a part of these specifications and are available in the office of
>
> (Address)
>
> "(b) Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work but

they shall be performed as if fully and correctly set forth and described in the drawings and specifications.

"(c) The Contractor shall check all drawings furnished him immediately upon their receipt and shall promptly notify the Contracting Officer of any discrepancies. Figures marked on drawing shall in general be followed in preference to scale measurements. Large scale drawings shall in general govern small scale drawings. The Contractor shall compare all drawings and verify the figures before laying out the work and will be responsible for any errors which might have been avoided thereby."

ECI 7-602.45 states:

"7-602.45 Contract Drawings, Maps and Specifications. If more than ten drawings, maps, and specifications are to be listed in the clause set out in DAR 7-602.45, language substantially as follows may be inserted in the space provided at the end of subparagraph (a) of the clause at the discretion of the Contracting Officer: "The list of drawings, maps and specifications set out at _____ is hereby incorporated by reference into the clause." [When such language is inserted, the incorporated list shall be clearly described; the list itself shall be clearly identifiable and shall be in type size not less than that of the clause.]"

The DAR clause is a mandatory clause but can be supplemented by lower authority (e.g., the authority to fill in the number of "sets" of drawings and specifications), and therefore can be an SP instead of a GP. However, the requirement for the contractor to check all drawings "immediately upon their receipt" is DAR language which cannot be changed.

2. Frequency of complaint. Two districts and two contractors registered complaints.

3. Uniformity of individual district clauses. In terms of district Complaint 1, all districts are uniform in requiring the contractor to examine the drawings "immediately." Just the opposite is true, however, as concerns Complaint 2. About one-third of the districts provide five sets of drawings. Another third provide 10 sets of drawings. The remaining third either provide the one reproducible requested by the contractor or more than 10 copies or sets.

CONCLUSIONS:

Not all contractors are furnished either enough copies of the drawings and specifications or at least one set of reproducibles. Districts have the authority to provide either one or both of them, but many of them do not use that authority. While this does not appear to be a common complaint, it can be easily remedied where it is a problem, especially on large or complex projects. As for requiring the contractor to check all drawings "immediately," it is a DAR requirement the districts can do nothing about. However, no contractor complained about this requirement.

TOPIC 10: PERFORMANCE OF WORK BY CONTRACTOR

REFERENCE: DAR 7-603.15, ECI 7-603.15

COMPLAINTS:

Corps District/Division Comments

1. "This clause is presumably to prohibit contractors from being brokers. However, this district interprets dollar expenditures as fulfilling the percentage requirements. Hence, the prime contractors comply with this requirement on many jobs by merely purchasing the materials. The clause should be enforced as intended or should be deleted."

2. "Special Provisions paragraph 'Performance of Work by Contractors' can be unenforceable and confusing to bidders if the percent of work to be performed by the prime contractor is considered unreasonable to him. The intention is to prevent the prime contractor from being a broker but conversely it can place an unreasonable burden on a reputable construction firm."

3. "Contractors consider requirement to perform at least 20 percent of the total amount of work with his own forces to be an unnecessary burden."

Contractor Comments

1. "Percentage is stated by 20 or 25 percent (varies by district) without regard for the type of construction; whether concrete- or steel-framed structure, a warehouse or a complex hospital or space-related support facility for examples. Some districts add the requirement of additional superintendents depending on the percentage of work subcontracted. Mere bodies will not produce assurance of control of highly technical subcontracted components of a structure. We are well aware, and I am sure that most of our normal competition for Corps of Engineers work are also aware, of the field organization required to produce quality work on time. The industry has outgrown the old concept of 'our work' and 'subs work.' We know how to provide the proper field staff; I cannot offer a specification paragraph that will direct a contractor to provide what he must to succeed in a high risk endeavor."

DISCUSSION:

1. Source. The primary source of regulatory authority for Performance of Work by Contractor is DAR 7-603.15. It states:

> "The Contractor shall perform on the site, and with his own organization, work equivalent to at least (words) percent (figures) of the total amount of work to be performed under the contract. If, during the progress of the work hereunder, the Contractor requests a reduction in such percentage and the Contracting Officer determines that it would be to the Government's advantage, the percentage of the work required to be performed by the Contractor may be reduced: *provided* written approval of such reduction is obtained by the Contractor from the Contracting Officer.

(End of clause)

"Note: The required percentage shall be the maximum consistent with customary or necessary specialty subcontracting, complexity, and magnitude of the work, and shall not be less than twenty percent (20%), except for housing contracts in which it shall not be less than fifteen percent (15%)."

This is an optional clause which does not have to be used unless applicable. Once it is used, however, a district cannot allow less than 20 percent as the minimum work that must be performed by the contractor.

ECI 7-603.15 states:

"7-603.15 Performance of Work by Contractor. The clause in DAR 7-603.15 normally will be included in all construction contracts, regardless of amount. However, District Engineers may waive the inclusion of this clause in contracts not exceeding $1,000,000 where such waiver is considered to be in the interests of the Government. These instructions are applicable to dredging contracts also. However, if dredges are hired on a charter party basis, with control being with the Prime Contractor (charterer), such an arrangement would not constitute a subcontract. The Contracting Officer must satisfy himself that the type of agreement between the owner of the dredge and the Contractor is one which would place the dredge within the Contractor's 'own organization' as distinguished from a subcontract to do a particular job."

OCE has apparently been granted an exception to the DAR clause for projects not exceeding $1 million. This allows prime contractors to bid relatively small jobs consisting largely of specialty work. However, with inflation, $1 million is not enough to catch many jobs consisting of large amounts of traditionally subcontractor work.

2. Frequency of complaint. There seems to be a general consensus that this rule -- designed to prevent brokers from winning bids -- is either unworkable, or, even if enforceable, not relevant today due to the changed nature of the construction marketplace (e.g., construction managers who act like a sophisticated general contractor, but without a construction workforce, are a recent development that is very popular for some types of work).

3. Uniformity of individual district clauses. Of the district masters available, none allowed the waiver offered in the ECI. Four of the districts required a 20 percent minimum, one district required 25 percent, and one district required 35 percent for all work. The remaining eight districts followed the guidance in the DAR and allowed variance based on each specific project (20 percent minimum for general work and 15 percent for housing).

CONCLUSIONS:

It is obviously impractical to apply the clause across-the-board to all projects. The option to omit the requirement from certain contracts of less than $1 million only partially solved the problem. As presently applied, in order to comply there will be cases where a prime contractor will be forced to perform some work normally assigned to specialty subcontractors. There also will be cases that force a subcontractor to bid as the prime and perform management functions beyond his expertise. In neither case is the Corps receiving the best service the industry has to offer. It is doubtful that this clause is doing anything positive at this time, particularly in view of the development of construction management groups within contractor and management organizations as separate entities.

The clause is weakened, if not killed outright, when the specified percentage can be reduced for the asking after the contract is awarded.

TOPIC 11: IDENTIFICATION OF EMPLOYEES

REFERENCE: DAR 7-603.34

COMPLAINTS:

Corps District/Division Comments

1. "(This SP) should not be required on civil works projects."

2. "(Contractor considers) requirement to provide identification of all employees engaged on the work (to be an unnecessary burden)."

Contractor Comments

None

DISCUSSION:

1. Source. The primary source of regulatory authority for Identification of Employees is DAR 7-603.34. It provides the district specifier with the following optional clause to be used on contracts where applicable:

> "7-603.34 Identification of Employees. A clause substantially as follows shall be inserted in all construction contracts where identification is required for security or other reasons:
>
> "Identification of Employees (1965 Jan).
>
> "The Contractor shall be responsible for furnishing to each employee and for requiring each employee engaged on the work to display such identification as may be approved and directed by the Contracting Officer. All prescribed identification shall immediately be delivered to the Contracting Officer, for cancellation upon the release of any employee. When required by the Contracting Officer, the Contractor shall obtain and submit fingerprints of all persons employed or to be employed on the project."

2. Frequency of complaint. Only two districts (and no contractors) complained.

3. Uniformity of individual district clauses. This clause has been offered where identification is needed for "security or other reasons." In reviewing district masters, the clause is always provided in military or military/Civil Works masters. In at least one case, the clause was also included in a Civil Works master.

It is clear that for many military projects, a clause of this nature is needed and should be specified. However, by the district complaints, it appears that this clause has, in effect, been "boilerplated" into projects where security was not needed. It was not clear what criteria were used in

determining why it was included. The DAR does not suggest what "other reasons" would be valid criteria.

The way this clause is written makes it very hard to bid. The requirments for security are left for the Contracting Officers to determine after the bidding of the project. This forces the contractor to unnecessarily second-guess the requirements for security. Rarely does the Corps have a project where the security requirements are not well known prior to bidding the project. By tailoring the specifications, as some districts have done to specific projects, the bidders have a much clearer understanding of project requirements, allowing the bid to be based on requirements, not contingencies.

CONCLUSION:

The clause was intended to be used for security purposes primarily, and, therefore, should probably be used only in military construction. However, many districts are inappropriately applying this clause also to nonsecurity projects.

TOPIC 12: LIQUIDATED DAMAGES

REFERENCES: DAR 7-603.39, DAR 18-113

COMPLAINTS:

Corps District/Division Comments

None

Contractor Comments

1. "We have noticed an increasing number of specifications containing liquidated damages clauses which assess large amounts for delayed performance. Examples of this include the specifications for (a) Lock and Dam...and those for (a) powerhouse....These large amounts are viewed by contractors as excessive, punitive, and very unnecessary.

"In the case of the specifications for the powerhouse...the specifications additionally provide for contractors to be liable for consequential damages beyond those assessed for liquidated damages. The situations which may create a consequential damage claim against a contractor may not have been the fault of the contractor; however, by contract, the contractor could still be required to defend against these claims.

"We recommend that the amount of liquidated damages in contracts be greatly reduced and that consequential damages be eliminated. Also, make more use of beneficial completion with no liquidated damages charged for cleanup, soil erosion, establishment, etc."

2. "The amount of liquidated damages should be a measure of the anticipated damages to be suffered by the Government if the contractor does not complete the contract within the allotted amount of contract time and should not act as a penalty for late completion. Further, the contractor should be allowed to receive an incentive payment for completion of a project prior to the completion date.

"AGC has protested to the Corps on several occasions (about) the capricious use of liquidated damages clauses. We believe that the primary purpose for their insertion into the contract is to compel performance rather than to reimburse the Government for its actual losses."

DISCUSSION:

1. Source. The primary source of regulatory authority for Liquidated Damages is DAR 7-603.39. It states:

"7-603.39 *Amount of Liquidated Damages.* In accordance with 18-113, insert the following clause.

"LIQUIDATED DAMAGES (1965 JAN)

"In case of failure on the part of the Contractor to complete the work within the time fixed in the contract or any extensions thereof, the Contractor shall pay to the Government as liquidated damages, pursuant to the clause of this contract entitled "Termination for Default - Damages for Delay — Time Extension," the sum of ... for each day of delay."

(End of clause)

DAR 18-113 provides guidance as to when this clause should be used, and how the damage amount should be calculated. It states:

"18-113 Liquidated Damages. A liquidated damages clause shall be included in all contracts in excess of $25,000 except cost-plus-fixed-fee contracts or those where the Contractor cannot control the pace of the work. Use of a liquidated damages clause is optional for contracts of $25,000 or less. Where such a provision is used, the clause set forth in 7-603.39 shall be included in the invitation for bids or request for proposals. Where different completion dates for separate parts or stages of the work are specified in the contract, this clause should be revised appropriately to provide for liquidated damages for delay of each separate part or stage of the work. The minimum amount of liquidated damages should be based on the estimated cost of inspection and superintendence for each day of delay in completion. Whenever the Government will suffer other specific losses due to the failure of the contractor to complete the work on time, such as the cost of substitute facilities, the rental of buildings, or the continued payment of quarters allowances, an amount for such items should also be included. Contracting Officers shall take all reasonable steps to mitigate liquidated damages in accordance with 1-310(c) and may propose remissions of such damages in accordance with 1-310(d)."

The ECI does not expand or implement DAR 7-603.39 in any way.

2. Frequency of complaint. Two contractors (but no district) registered c mplaints.

3. Uniformity of individual district clauses. The districts used this clause verbatim. There were no cases of additional language in the master specification requiring consequential damage in addition to liquidated damages.

CONCLUSION:

In the course of this study, it was not possible to determine whether excessive liquidated damages amounts are being imposed in Corps contracts. The guidance provided the districts would suggest that most contracts have an appropriate amount included for liquidated damages.

There were no cases of additional consequential damages being included in the district masters. Apparently this occurred only on a few specific Civil Works projects in an attempt to protect the Government from the costs of extensive delays.

TOPIC 13: ENVIRONMENTAL PROTECTION

REFERENCES: DAR 7-602.34, DAR 7-103.29, ECI 7-671.10

COMPLAINTS:

Corps District/Division Comments

1. "Requirements considered by contractors to be an unnecessary burden... submission of an environmental plan."

2. "None of the requirements contained in these sections are considered to be of questionable benefit, however, contractors have indicated that they consider all or part of the section Environmental Protection to be unnecessary burdens."

Contractor Comments

"The broad provisions of this paragraph should be examined closely in regard to their impractical applications on each individual project. Sweeping enforcements of the terms set forth in this paragraph, without consideration to the merits of each individual project, may result in unnecessary cost to the contractor and, therefore, to the Government."

DISCUSSION:

1. Source. The original source of regulatory authority for Environmental Protection is DAR 7-602.34, which was developed prior to the Clean Air Act and Water Pollution Act and specifically protects existing vegetation, structures, utilities, and improvements from damage by the contractor. It does not protect the environment in the sense that the later clauses do.

DAR 7-103.29 was prepared in 1975 to contractually bind the contractor to the provision of the Clean Air Act and the Federal Water Pollution Control Act on contracts in excess of $100,000. The clause states that the contractor will comply with all applicable provisions of these Acts. It does not state what specific procedures must be followed or to what extent the Acts apply on this contract.

ECI 7-671.10 specifies procedures for the contracting officer of Civil Works or dredging contracts when environmental litigation suspends, delays, or interrupts the work. When the delay is considered unreasonable, an adjustment will be made in the contract for increased costs (excluding profit).

2. Frequency of complaint. Two districts indicated that contractors had complained. The districts did not feel that this was an excessive burden. Since the primary source of this topic is public law, many contractors may have felt that nothing could be done at the Corps level to reduce the burden.

3. Uniformity of individual district clauses. District masters varied significantly, reflecting lack of specific guidance on this subject.

CONCLUSIONS:

Reviewing specific district masters reveals considerable variance in both the requirements and the philosophy of implementing environmental laws on Corps projects. It would appear that this portion of the building documents would be very hard to accurately bid. Clearly, uniformity on this subject is needed.

TOPIC 14: PERMITS

REFERENCES: DAR 7-602.13

COMPLAINTS:

Corps District/Division Comments

1. "Permits. Contractors have expressed a desire that the Government obtain all necessary permits in lieu of the present method which makes it a contractor obligation. Presently, it's the contractor's responsibility to determine what state and local permits are required for the proposed activity. The contractors contend that permitting procedures vary considerably from state to state, and since the Corps operates in all states, the Corps is in a better position than the contractor to define the various state and local permits, licenses, approvals, and certification required for a particular project."

Contractor Comments

"Under several Corps contracts, rights-of-way are not obtained by the Corps. This matter is particularly important on long channel or levee contracts. AGC believes that it is reasonable to request all the bidders to negotiate the rights-of-way prior to the bid letting when the Corps can execute it. We encourage the Corps to make arrangements for rights-of-way prior to advertisement."

DISCUSSION:

1. Source. The primary source of regulatory authority for Permits is DAR 7-602.17. It states:

> "The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any applicable Federal, State, and municipal laws, codes, and regulations, in connection with the prosecution of the work. He shall be similarly responsible for all damages to persons or property that occur as a result of his fault or negligence. He shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. He shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire construction work, except for any completed unit of construction thereof which theretofore may have been accepted."

This is a mandatory DAR clause that must be used verbatim by districts.

2. Frequency of complaint. Only one district registered this complaint. Since this clause is a GP rather than an SP, it is possible that other districts might not have registered a complaint because they thought it was inappropriate. The same rationale could explain the absence of any contractor complaint.

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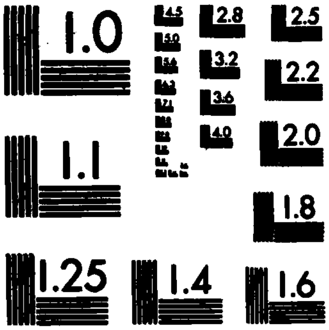

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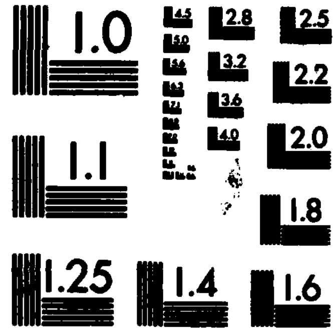

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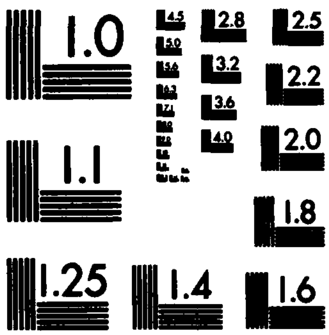

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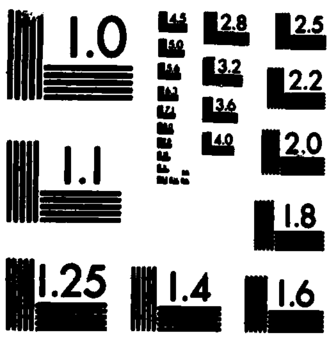

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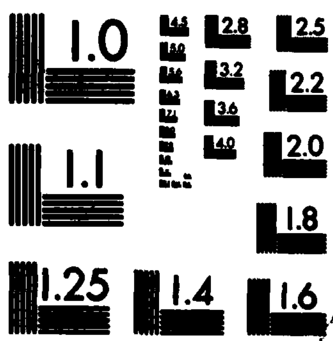

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3. Uniformity of individual district clauses. All districts cited DAR 7-602.13 verbatim, although in practice it appears some districts secure certain permits for their contractors contrary to DAR 7-602.13.

CONCLUSION:

There does not appear to be a problem among contractors for the requirement that they secure permits. Perhaps this is because in private construction, contractors almost universally secure the necessary permits.

TOPIC 15: SALVAGE MATERIAL AND EQUIPMENT

REFERENCES: DAR 7-603.29 (no ECI commentary)

COMPLAINTS:

Corps District/Division Comments

"The Government should perform this activity. The amount of time required to show the contractor what we want or will accept often exceeds the time it would take for us to do it."

Contractor Comments

None

DISCUSSION:

1. Source. The primary source of regulatory authority for Salvage Material and Equipment is DAR 7-603.29. It requires the insertion of the following clause on contracts which involve Government-furnished property which is to be salvaged and reused:

> "The Contractor shall maintain adequate property control records for all materials or equipment specified to be salvaged. These records may be in accordance with the Contractor's system of property control, if approved by the property administrator. The Contractor shall be responsible for the adequate storage and protection of all salvaged materials and equipment and shall replace, at no cost to the Government, all salvage materials and equipment which are broken or damaged during salvage operations as the result of his negligence, or while in his care."

The ECI does not expand or implement this clause in any way.

2. Frequency of complaint. Only one district (but no contractor) registered this complaint.

3. Uniformity of individual district clauses. The districts used this clause verbatim.

CONCLUSION:

The complaint, while it might well be valid, lacks evidence, either in terms of number of complaints or amount of burden, to warrant study at this time. If a study were to be undertaken, the DAR committee should be the proponent.

OTHER SP/GR TOPICS

The limited time allocated for this study prevented investigating all of the topics identified by survey respondents. The following were either considered less important (based on number of respondents) than other topics addressed, or arrived too late to allow consideration. However, implementation of the recommendations provided in Chapter 5 will resolve many of the questions they raise. Other, more complex issues will require further study.

Layout of Work

"This paragraph sets forth the Government's (Corps') and the contractor's respective responsibilities for layout of the work and measurements. While this is essentially a standard paragraph, and on face value does not indicate that it would lead to an additional and costly burden to the contractor, the manner in which the Corps tried to perform its part of this work did result in the contractor having to bear an additional work burden and costs.

"On one particular contract, the Corps provided (which is common practice in [this] district) survey parties employed by A/E firms under contracts to the Corps to provide such services. Our experience with these contract survey parties is that they are unqualified on the majority of jobs as they were on this project. Additional problems were created as a result of the A/E contractor having second- and third-tier subcontractors. On this particular project, there were ten (10) different layout parties. Also, the work performed by these contract survey parties was slow and inaccurate. This required the contractor to maintain an additional engineering survey force which resulted in duplication of work at tremendous costs."

Cost of Temporary Utilities

"A number of districts for work at some installations specify that water and energy are available at *no cost* to the contractor. This is to the Government's benefit in the present economy. If nobody knows what the cost will be, the estimated cost must be high. The Government's construction costs would be lower if water, electrical energy, and hot water and steam (or fuel oil or coal) for temporary construction needs and for maintaining climate control within buildings in the interior finish stage are made available uniformly at no cost to the contractor. An added benefit is that building systems are 'debugged' during construction rather than after occupancy. This approach should require warranty period revision and some relaxation of a 'like-new' requirement on heating, ventilating, and air-conditioning, and other equipment."

Phasing of Construction

"Lower costs could be realized if phasing of construction could produce uniform man-day construction requirements for as long as practicable considering the actual user restraints. An elongated bell curve is ideal; any elimination of high and low points would help. The tradeoff between user

inconvenience and construction costs could effect shorter construction time and cost."

Equipment Layout Coordination

"This design function is included in some construction SPs. This is not a problem until the design does not permit the simple act of coordination; then it costs time, money, and aggravation on all sides. The end result is often lower ceilings than desirable, rerouting of systems with less efficiency, etc."

Government-Furnished Equipment

"In actual practice, we are often provided some notice; however, the standard wording can require us to expect delivery at any time (contractor pays demurrage), fully assembled or not, crated or not. More specifics could produce more accurate pricing. We recommend the specifications provide detailed descriptions or an allowance to be used for bidding that can be converted to lump-sum amount when such detailed description is available."

"This clause should only be used when absolutely necessary. With the contractor furnishing material or equipment, he has complete control of his schedule, and how the delivery of materials will affect the schedule."

Warranty

"A long-term project immediately brings conflict between manufacturers' standard warranty duration and the project documents."

Energy Conservation

"This SP states that the contractor shall insure that construction operations are conducted efficiently and with the minimum use of energy. Such vague language adds nothing except to take up space in the specifications. Apparently, the source of this SP is 'VXD SOP 11-27.' In the absence of any clarification, such SOP does not appear to be a part of contract requirements, and SPs of this nature should not be included in specifications."

"This special provision states that the contractor shall insure that construction operations are conducted efficiently and with the minimum use of energy. Such superfluous, vague language adds nothing except to take up space in the specifications."

Nondomestic Construction Materials, Controlled Materials Data, and Preference For Domestic Specialty Metals

"Should be eliminated for most projects as they are considered to be of questionable benefit."

Continuing Contracts

"The procedure to be followed in case the funds are exhausted during the fiscal year is very unfair to the contractor. It seems that under this paragraph, the contractor has two choices:

"1. To suspend his operation, in which case he receives no compensation for his equipment, people, etc.

"2. To continue the work, in which case he must finance the work at prevailing interest rates, which are normally higher than those established by the Secretary of the Treasury. There is no apparent assurance the contractor will ever get compensated if he elects to proceed with the work.

"In an extreme situation, the contractor would have to be in standby, with no compensation, or finance his operations, for 1 year.

"The contractor should be allowed adequate compensation for any expenses he is incurring, or be allowed to terminate the contract earlier than is currently possible."

"The Corps requires that all contractors bidding on a job be responsible and responsive to the contract documents. Yet, through the provisions of this paragraph, the Corps allows themselves the option of relieving themselves of their responsibility of making timely progress payments. This double-standard should not be allowed to exist. The Government should be required to pay an equitable delay or termination allowance in any case in which they fail to make a timely payment which is not the fault of the contractor."

Quantity Surveys

"The language in this paragraph has been interpreted as a requirement to perform full-scale aerial surveys for each period for which a progress payment is to be made. Although this requirement has subsequently been relaxed, it appears unnecessary to perform such surveys more frequently than once or twice per year. Sufficient accuracy can be obtained by load count or similar methods for interim periods. The language needs to be clarified so that the intent is clear.

"It is unnecessary to require that the survey be performed by or under the direct supervision of a person licensed to practice in a specific state. It would be more than sufficient to require that the work be reviewed or monitored by a licensed surveyor."

Equipment Ownership and Operating Expense Schedule

"The requirement for use of the Equipment Ownership and Operating Expense Schedule is considered to be of questionable benefit in military projects.

"Paragraph 13 of Section 1A, requirement for providing operating and maintenance data and providing field instructions (is viewed by contractors as an unnecessary burden). (We recommend that you) eliminate requirement for

contractor to furnish O&M Manuals which should be function of the designer. Contractor should furnish necessary information but designer should develop systems-oriented manuals."

Project and Safety Signs

"Most contractors consider the construction and placement of a separate safety sign to be an unnecessary expense and burden. They believe that the Government derives little or no benefit from this requirement. If posting of safety information regarding days worked without a lost-time injury is required, it can be placed on the bottom of the project sign. Both the project and safety signs for all contracts where construction is spread out over a number of locations should be eliminated."

APPENDIX C: EXECUTIVE ORDER 12352

Executive Order 12352 of March 17, 1982
Federal Procurement Reforms

By the authority vested in me as President by the Constitution and laws of the United States of America, and in order to ensure effective and efficient spending of public funds through fundamental reforms in Government procurement, it is hereby ordered as follows:

Section 1. To make procurement more effective in support of mission accomplishment, the heads of executive agencies engaged in the procurement of products and services from the private sector shall:

(a) Establish programs to reduce administrative costs and other burdens which the procurement function imposes on the Federal Government and the private sector. Each program shall take into account the need to eliminate unnecessary agency procurement regulations, paperwork, reporting requirements, solicitation provisions, contract clauses, certifications, and other administrative procedures. Private sector views on needed changes should be solicited as appropriate;

(b) Strengthen the review of programs to balance individual program needs against mission priorities and available resources;

(c) Ensure timely satisfaction of mission needs at reasonable prices by establishing criteria to improve the effectiveness of procurement systems;

(d) Establish criteria for enhancing effective competition and limiting noncompetitive actions. These criteria shall seek to improve competition by such actions as eliminating unnecessary Government specifications and simplifying those that must be retained, expanding the purchase of available commercial goods and services, and, where practical, using functionally-oriented specifications or otherwise describing Government needs so as to permit greater latitude for private sector response;

(e) Establish programs to simplify small purchases and minimize paperwork burdens imposed on the private sector, particularly small businesses;

(f) Establish administrative procedures to ensure that contractors, especially small businesses, receive timely payment;

(g) Establish clear lines of contracting authority and accountability.

(h) Establish career management programs, covering the full range of personnel management functions, that will result in a highly qualified, well managed professional procurement work force; and

(i) Designate a Procurement Executive with agency-wide responsibility to oversee development of procurement systems, evaluate system performance in

accordance with approved criteria, enhance career management of the procurement work force, and certify to the agency head that procurement systems meet approved criteria.

Sec 2. The Secretary of Defense, the Administrator of General Services, and the Administrator for the National Aeronautics and Space Administration shall continue their joint efforts to consolidate their common procurement regulations into a single simplified Federal Acquisition Regulation (FAR) by the end of calendar year 1982.

Sec 3. The Director of the Office of Personnel Management, in consultation with the heads of executive agencies, shall ensure that personnel policies and classification standards meet the needs of executive agencies for a professional procurement work force.

Sec 4. The Director of the Office of Management and Budget, through the Office of Federal Procurement Policy as appropriate, shall work jointly with the heads of executive agencies to provide broad policy guidance and overall leadership necessary to achieve procurement reform, encompassing:

(a) Identifying desirable Government-wide procurement system criteria, such as minimum requirements for training and appointing contracting officers;

(b) Facilitating the resolution of conflicting views among those agencies having regulatory authority with respect to Government-wide procurement regulations;

(c) Assisting executive agencies in streamlining guidance for procurement processes;

(d) Assisting in the development of criteria for procurement career management programs;

(e) Facilitating interagency coordination of common procurement reform efforts;

(f) Identifying major inconsistencies in law and policies relating to procurement which impose unnecessary burdens on the private sector and Federal procurement officials; and, following coordination with executive agencies, submitting necessary legislative initiatives for the resolution of such inconsistencies; and

(g) Reviewing agency implementation of the provisions of this Executive Order and keeping me informed of progress and accomplishments.

THE WHITE HOUSE
March 17, 1982

APPENDIX D: PROPOSED MASTER SPECIFICATION TOPICS (grouped using Broadscope CSI master format section titles)*

Division 0 BIDDING AND CONTRACT REQUIREMENTS

Information Available to Bidders

00220 Soil Investigation Data
- o Test Boring Data

SUPPLEMENTARY CONDITIONS (Supplementary Provisions)
- o Commencement, Prosecution, and Completion of Work
- o Liquidated Damages
- o Performance of Work by Contractor
- o Certificates of Compliance
- o Superintendence of Subcontractors
- o Warranty of Construction (Military)
- o Continuing Contracts (Civil)
- o Required Insurance
- o Time Extension
- o Exclusion of Periods in Computing Completion Schedule
- o State Sales and Use Tax Exemption
- o Labor Requirements

Division 1 GENERAL REQUIREMENTS

01010 Summary of Work
- o Other Contracts
- o Order of Work and Coordination with Other Construction
- o Limits of Work Areas
- o Special Scheduling
- o Work in Quarantined Area
- o Contractors Use of Premises (New)
- o Compliance with Post/Base Regulation
- o Government-Funded Products

01030 Special Project Procedures
- o Remodeling Project Procedures (New)
- o Salvaged Materials and Equipment
- o Identification of Government-Furnished Property

01040 Coordination
- o Coordination Between Contractors

01050 Field Engineering
- o Layout of Work
- o Survey Reference Points (New)

01100 Alternates
- o Alternates "Pro-Forma" (New)

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* Existing Corps topics follow bullet (o).

01150 Measurement and Payment
- o Payment for Mobilization and Preparatory Work
- o Unit Prices (New)
- o Progress Payments
- o Application for Payment (New)
- o Performance and Payment Bond Reimbursement
- o Variations in Estimated Quantities - Subdivided (Civil)
- o Payment for Materials Delivered Off-Site
- o Change Order Procedure (New)
- o Quantity Surveys
- o Purchase Orders

01200 Project Meetings
- o Preconstruction Conference (New)
- o Progress Meetings (New)

01300 Submittals
- o Submittal Register
- o Shop Drawings
- o Progress Schedule and Reporting
- o Contractor-Prepared Network Analysis
- o Color Boards (Air Force)
- o Progress Photographs (Civil)
- o Schedule of Values (New)

01400 Quality Control
- o Contractor Quality Control
- o Contractor Inspection System
- o Lab and Test Facilities

01510 Temporary Utilities
- o Availability of Utility Service
- o Unavailability of Utility Service
- o Temporary Construction Items
- o Planned Utility Outages

01530 Barriers
- o Fencing (New)

01540 Security
- o Military Security Requirements (Military)
- o Identification of Employee (Military)
- o Use of Explosives (Dredging)
- o Registration of Contractor Vehicles (Military)

01560 Temporary Controls
- o Environmental Protection
- o Waste Disposal
- o Environmental Litigation

01570 Traffic Regulation
- o Signal Lights (Marine)
- o Haul Routes (New)
- o Construction Parking Control (New)

01580 Project Identification and Signs
- o Project Signs
- o Bulletin Board

01590 Field Offices and Sheds
- o Government Field Office
- o Inspector Facilities
- o Accommodations and Meals for Inspectors (Dredging)

01600 Materials and Equipment
- o Approved Aggregate Sources
- o Required Source for Aluminum Ingot
- o Required Source for Jewel Bearings
- o Nondomestic Construction Materials
- o Preferences for Domestic Specialty Metals
- o Source of Dredging Equipment (Dredging)
- o Protection of Materials and Work
- o Reuse of Existing Material (New)
- o Substitutions and Product Options (New)

01700 Contract Closeout
- o Operating and Maintenance Data
- o As-Built (Record) Drawings
- o Property Records (GF/CI)
- o Warranties and Bonds (New)
- o Housekeeping and Cleanup
- o Reinspection Fees (New)
- o Final Examination and Acceptance (Dredging)
- o Plant Layout Drawings
- o Contractor Closeout Submittals (New)

01900 Safety
- o Accident Prevention
- o Fire Protection for Off-the-Road Construction Equipment

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