



**REYNOLDS ELECTRICAL & ENGINEERING CO., INC. (REECO)**

**PRESENTED**

**TO**

**NUCLEAR WASTE TECHNICAL REVIEW BOARD**

**NOVEMBER 4-5, 1992**

## **MAJOR REECO FUNCTIONS**

**CONSTRUCTION (TEST & PERMANENT)**

**MINING**

**DRILLING**

**HEAVY EQUIPMENT OPERATIONS**

**FLEET OPERATIONS**

**UTILITY AND FACILITY MAINTENANCE**

**COMMUNICATIONS**

**POWER DISTRIBUTION**

**SUPPLY & PROPERTY MANAGEMENT**

**HOUSING AND FEEDING**

**PLANT ENGINEERING**

**MEDICAL OPERATIONS**

**FIRE PROTECTION**

**HEALTH PROTECTION**

**WASTE OPERATIONS**

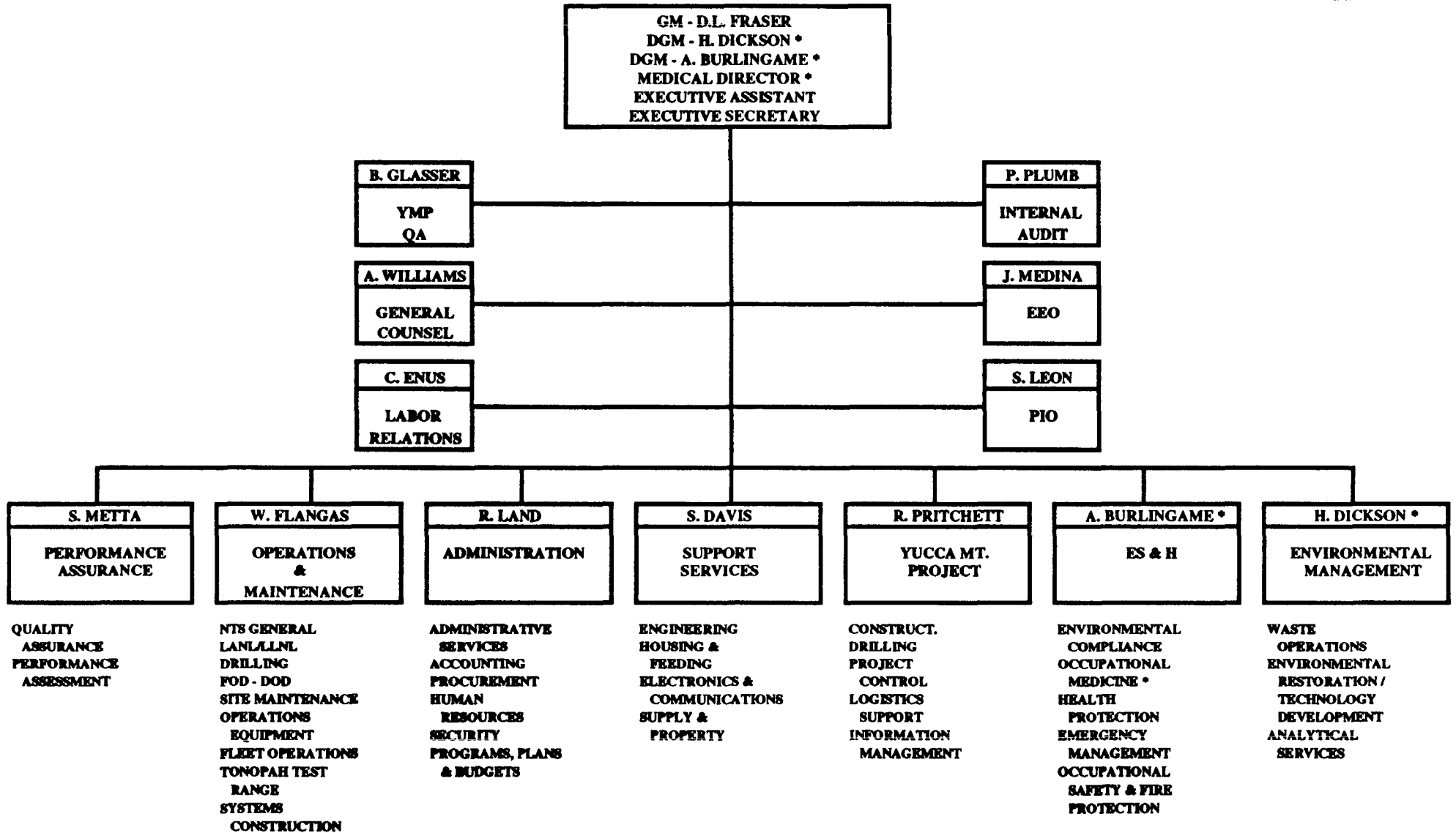
**ENVIRONMENTAL MANAGEMENT**



# REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

OCTOBER 23, 1992

TOTAL ..... 3,971  
 SLABBED ..... 908  
 HOURLY ..... 2,934  
 INACTIVE ..... 52



\* DUAL

## REECO HISTORICAL DATA

- **PRIME MANAGEMENT AND OPERATING CONTRACTOR AT THE NTS SINCE 1952**
- **40 YEARS OF EXPERIENCE SUPPORTING TESTING PROGRAMS IN HIGHLY REGULATED ENVIRONMENT**
- **PRESENTLY HAVE A NRC APPROVED QA PLAN FOR THE YUCCA MOUNTAIN PROJECT**
- **TRADITIONALLY BEEN SIGNATORY WITH LABOR UNIONS FOR CRAFT WORKERS**
- **1952-1965 - LAS VEGAS AREA LABOR AGREEMENTS, I.E., AGC, NECA**
- **1965 - PRESENT -- PROJECT LABOR AGREEMENTS**

### CONSTRUCTION (DAVIS-BACON)

ASBESTOS WORKERS  
CARPENTERS  
CEMENT MASONS  
ELECTRICIANS  
ELEVATOR MECHANICS  
IRONWORKERS  
LABORERS  
OPERATING ENGINEERS  
PAINTERS  
PLUMBERS AND  
PIPEFITTERS  
SHEET METAL WORKERS  
SPRINKLER FITTERS  
TEAMSTERS  
TUNNEL WORKERS

### MAINTENANCE & OPERATIONS

CARPENTERS  
CEMENT MASONS  
ELECTRICIANS  
IRONWORKERS  
LABORERS  
OPERATING ENGINEERS  
PAINTERS  
PLUMBERS  
SHEET METAL WORKERS  
TEAMSTERS

### OTHER

CULINARY  
FIREFIGHTERS

## **BENEFITS TO HAVING LABOR AGREEMENTS**

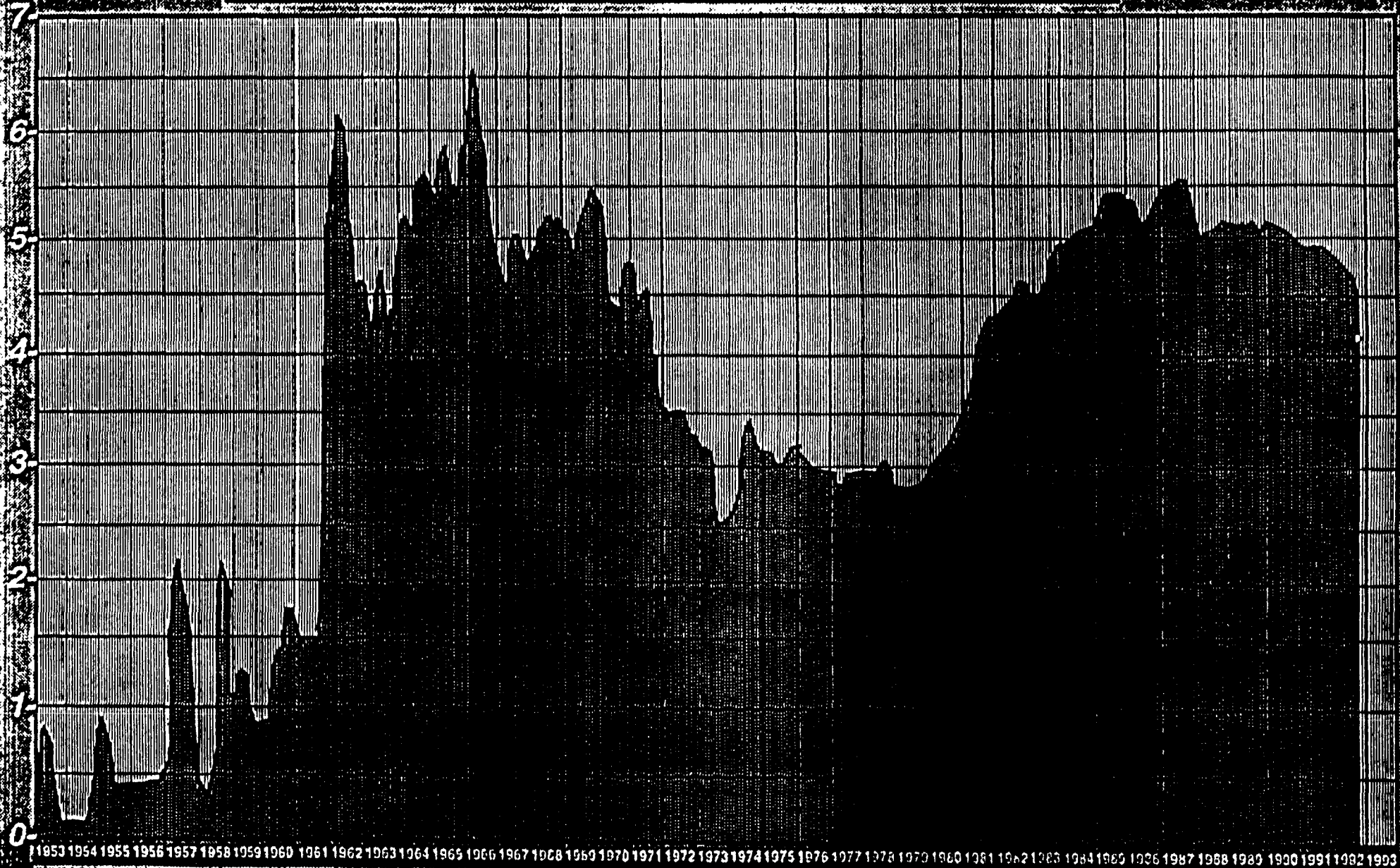
- **GOOD SOURCE OF SUPPLY FOR CRAFTSMEN**
- **GENERALLY MORE SPECIFICALLY QUALIFIED THAN NONUNION WORKERS**
- **CAN INCREASE WORK FORCE RAPIDLY**

## **DRAWBACKS TO HAVING UNION AGREEMENTS**

- **SOME RESTRICTIVE WORK PRACTICES, I.E., CRAFT JURISDICTION**
- **OCCASIONAL WORK STOPPAGES  
TWO SINCE 1970**



# REECO Work Force



1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993

**REECO PROJECT LABOR AGREEMENTS (PLA) VERSUS LAS VEGAS  
AREA LABOR AGREEMENTS (AGC, NECA, ETC.)**

**REECO PLAs GENERALLY MUCH MORE FAVORABLE TO  
EMPLOYER SUCH AS:**

**WAGE RATES LOWER**

**SUCH AS:**

**OPERATING ENGINEERS**

**\$3.50/HR LOWER @ REECO THAN LAS VEGAS AREA RATES**

**TUNNEL WORKERS**

**\$5.25/HR LOWER @ REECO THAN CALIFORNIA RATES**

**SUBSISTENCE RATES LOWER**

**\$5.00 OR 7.50/DAY AT REECO**

**\$25.00 TO 30.00/DAY IN LAS VEGAS AREA AGREEMENTS**

**GENERALLY MORE FAVORABLE WORK RULES**

## **WAGE RATES**

**THE CONSTRUCTION HOURLY RATES WITH FRINGE BENEFITS  
WOULD BE THE SAME FOR NONUNION AS FOR UNION WORKERS  
FOR FEDERALLY FUNDED CONSTRUCTION WORK BY VIRTUE OF  
THE DAVIS-BACON ACT. THE REECO CONSTRUCTION RATES SET  
THE PREVAILING RATES FOR THE NEVADA TEST SITE  
INCLUDING THE YUCCA MOUNTAIN PROJECT.**



## **CONSTRUCTION SUPPORT TO YUCCA MOUNTAIN PROJECT (YMP)**

- **YMP HAS NOT SUSTAINED A CONTINUOUS CONSTRUCTION PROGRAM - ONLY SHORT DURATION JOBS**
- **MOST CONSTRUCTION SUPPORT HAS BEEN MATRIXED FROM OTHER REECO DEPARTMENTS**
- **MATRIX CONSTRUCTION SUPPORT HAS BEEN RESPONSIVE AND COST EFFECTIVE**

### **EXAMPLE**

**A 631 CAT SCRAPER FULLY OPERATED, MAINTAINED, AND SUPERVISED HAS COST THE PROJECT APPROXIMATELY \$60 PER HOUR**

**THE COMPARABLE RATE FOR A 631 SCRAPER FROM OUTSIDE CONTRACTOR WOULD HAVE BEEN APPROXIMATELY \$150-180/HR**

**A D-10 DOZER FULLY OPERATED, MAINTAINED, AND SUPERVISED HAS COST APPROXIMATELY \$60/HR**

**COMPARABLE RATE FOR A D-10 DOZER FROM OUTSIDE CONTRACTOR WOULD HAVE BEEN APPROXIMATELY \$200-220/HR**

**THE BIGGEST DIFFERENCE IS OWNERSHIP COST**

**TOTAL ESTIMATED COST (PRICE)/OPERATING HOUR**

**PER CASHMAN EQUIPMENT CO.**

	<u><b>D-10 DOZER</b></u>	<u><b>631 SCRAPER</b></u>
<b>OWNERSHIP COST/HR</b>	<b>\$85.00</b>	<b>\$73.00</b>
<b>OPERATING COST/HR</b>	<b>\$45.00</b>	<b>40.00</b>
<b>FUEL, OIL, GREASE</b>		
<b>REPAIR PARTS, REPAIR</b>		
<b>LABOR</b>		
<b>REPAIR RESERVE</b>		
<b>UNDERCOVERAGE (D-10)</b>		
<b>TIRES (631)</b>		
<b>OPERATOR/HR</b>	<u><b>35.00</b></u>	<u><b>35.00</b></u>
	<b>165.00</b>	<b>148.00</b>
<b>JH, G&amp;A, PROFIT/HR</b>	<u><b>33.00</b></u>	<u><b>29.60</b></u>
<b>TOTAL COST (PRICE)/HR</b>	<b>\$198.00</b>	<b>\$177.60</b>

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**PER FREHNER CONSTRUCTION CO.**

	<u><b>D-10 DOZER</b></u>	<u><b>631 SCRAPER</b></u>
<b>TOTAL COST (PRICE)/HR</b>	<b>\$212.00-222.00</b>	<b>\$150.00-160.00</b>

# REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

## LABOR "MARKUP"

### GENERAL & ADMINISTRATIVE (G&A)

General Management	Procurement
Contract Fee	Internal Audit
Legal	Human Resources
Equal Employment Opportunity	Administrative Services
Labor Relations	Information Systems
Public Information	Property Management
Accounting	Property Taxes (Including Nevada Business Tax)
Programs, Plans, & Budget	Office Rents, etc.
Security	

### LABOR LOAD

<u>Fringe Benefits</u>	<u>Departmental Supervision</u>
Union Benefits	Manager
Payroll Taxes (FICA, Unemployment)	Supervisors
Leave (Annual, Sick, etc.)	Engineers
State Industrial Insurance System (SIIS), Medical Service Payments	Clerical
Retirement	<u>Nonproductive Time</u>
Tuition Aid	General Training
Investment Savings Plan	Physicals, Drug Screens
Insurance	Leaves (Annual, Jury, Military, Voting, Administrative, etc.)
	Security Processing
<u>Departmental Costs</u>	<u>Department Other</u>
Supplies/Materials/Small Tools	Division Office Allocation
Travel (Official, Relocation, Travel, etc.)	Division Office Management (Prorated to all Departments within the Division)
Training Costs	General Plant Project (GPP) Variance (O&M Division ONLY)
Subscriptions	Quality Assurance Prorates
Light Vehicles	Engineering Prorates
Communications (Radios, Phones, etc.)	Other Prorates
Reproduction Charges (Print Plant)	

### DIRECT LABOR

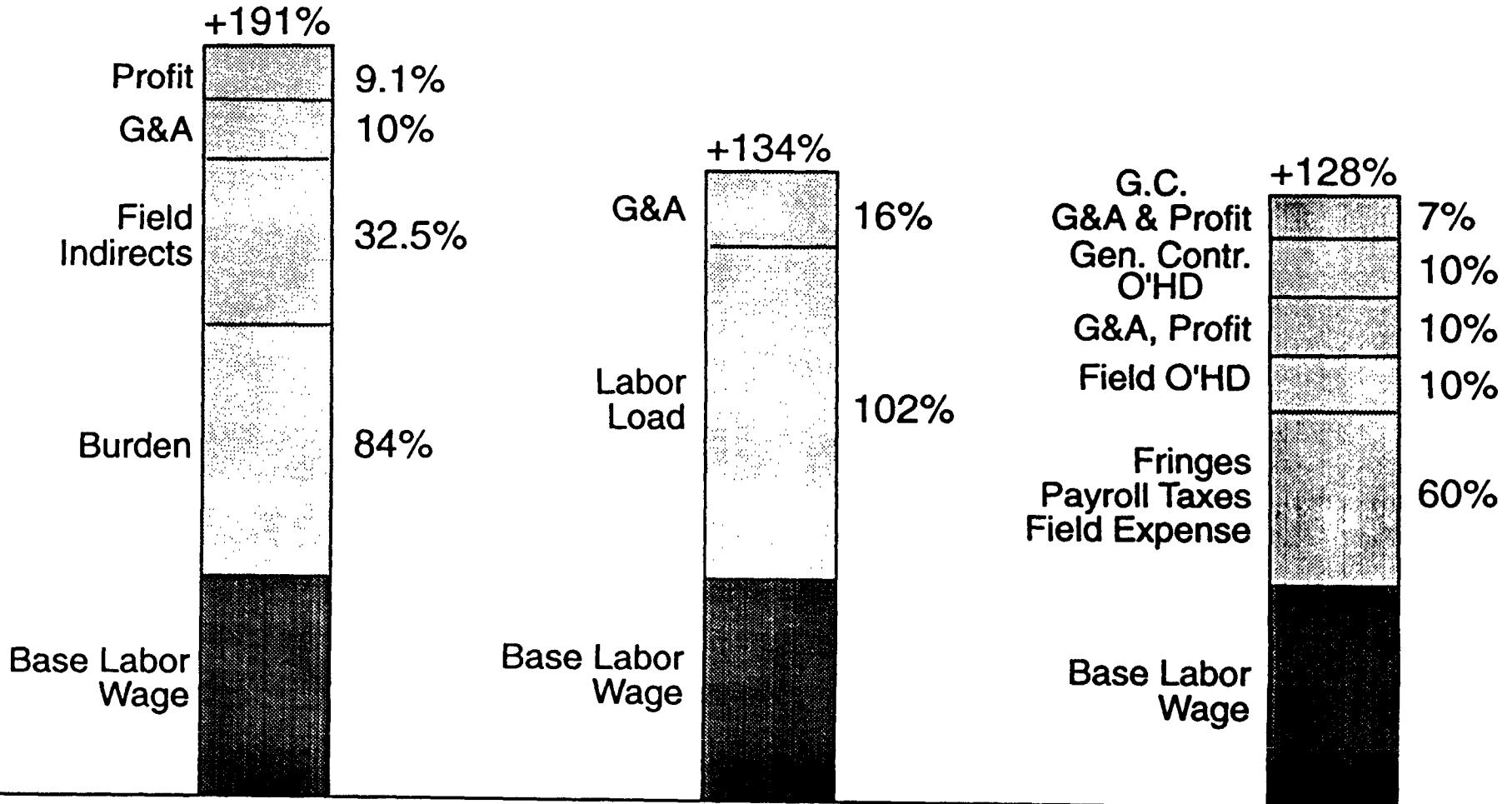
Craft Labor (Hourly Rate)  
Other "Hands-On" Labor (Hourly Rate)

**COMPONENTS OF LABOR "MARKUP"**

<b>DIRECT LABOR (CRAFT HOURLY) SAY \$20</b>	<b>\$20.00</b>
<b>PLUS</b>	
<b>LABOR LOAD (80-100% OF DIRECT LABOR) SAY \$20</b>	<b>20.00</b>
<b>PLUS</b>	
<b>G&amp;A (16% ON DIRECT LABOR AND LABOR LOAD)</b>	<b><u>6.40</u></b>
<b>TOTAL LABOR RATE</b>	<b>46.40</b>
<b>PLUS</b>	
<b>EQUIPMENT LOAD (SAY 66% OF DIRECT LABOR) OR DIRECTLY CHARGED</b>	<b><u>13.20</u></b>
<b>TOTAL LOADED RATE</b>	<b>\$59.60</b>

# Comparison Labor Adders

## REECo To Competitive Contractors



Contractor A  
General Engineering  
Underground Const.  
\$40 Million Range

REECo  
FOD-DOD  
FY1991

Contractor B  
General Building  
1st Tier Subcontractor  
\$20-40 Million Range

# Comparison Labor Adders

## REECO To Competitive Contractors

**+191%**

**Profit 9.1%**

**G&A 10%** General Management, Legal, Estimating, Engineering, Subcontracting, Purchasing, Accounting, Corp. Insurance

**Field Indirects 32.5%**

Project Managers, General Superintendents, Raise Drill Superintendents, Walkers, Proj. Engineers, Office Staff, Vehicles, etc.

**Burden 84%**

Union Fringes: Pension, Training, Assoc. Dues, Retir., etc.  
Taxes/Burden: Gen. Liab. Insur., Fed. + State Unemp. Insur., FICA, Work Comp., Black Lung Insur., etc.  
Other Fringes: Per Diem, Travel, etc.

**Base Labor Wage**

Base Labor Wage, Craft Wages, Foremen, and Overtime

**+134%**

**G&A 16%** Profit (fee), Gen. Management, Legal, Labor Relations, Public Info. Office, Emergency Mgmt. Office, Internal Audit, Admin. Division Office, Human Resources, Procurement, Accounting, Programs, Plans & Budgets, Info. Systems, Property, Admin. Services, Other Overhead Costs.

**Labor Load 102%**

Department Costs, Project Managers, Supt., Engrs, Walkers, Light Vehicles, Div. Office Allocation (Q/A, Safety, etc.), Travel, Training, Process Time, Drug Screen, Payroll Taxes, Union Benefits, Vacation, Sick and Admin. Leave, SIIIS and Medical Payment, Bus Prorate, etc.

**Base Labor Wage**

Base Labor Wage, Craft Wages, Foremen, Overtime, and Subsistence

Contractor A

REECO  
FOD-DOD

**ADVANTAGES/DISADVANTAGES  
COST REIMBURSABLE VERSUS FIXED PRICE CONSTRUCTION CONTRACTING**

**COST REIMBURSABLE**

- **MORE FLEXIBLE - CAN START, STOP, AND MODIFY WITH RELATIVE EASE**
- **LESS RISK - LOWER FEE**
- **GENERALLY HIGHER QUALITY**
- **LENDS ITSELF TO R&D, TESTING, ETC.**
- **FEE IS DEPENDENT ON PERFORMANCE (CPAF)**
- **BOUND BY DEARs AND SOME FAR PROVISIONS**

**FIXED PRICE OR UNIT PRICE**

- **NEEDS WELL DEFINED SCOPE, DESIGN, AND SPECIFICATIONS**
- **LESS FLEXIBLE-CANNOT IMPEDE PROGRESS OR MAKE SIGNIFICANT CHANGES WITHOUT PENALTIES.**
- **GENERALLY LOWER QUALITY**
- **HIGHER RISK - MORE MARKUP**
- **PROVIDES COMPETITION**
- **GENERALLY NOT BOUND BY DEARs AND FARs**

**A COMBINATION OF BOTH IS PROBABLY BEST FOR YMP**

- **USE COST-TYPE CONTRACTOR WHERE FLEXIBILITY IS NEEDED AND/OR SCOPE, GENERAL/SPECIAL CONDITIONS CANNOT BE WELL DEFINED**
- **USE FIXED PRICE/UNIT PRICE CONTRACTING WHEN ALL CONDITIONS CAN BE WELL DEFINED**