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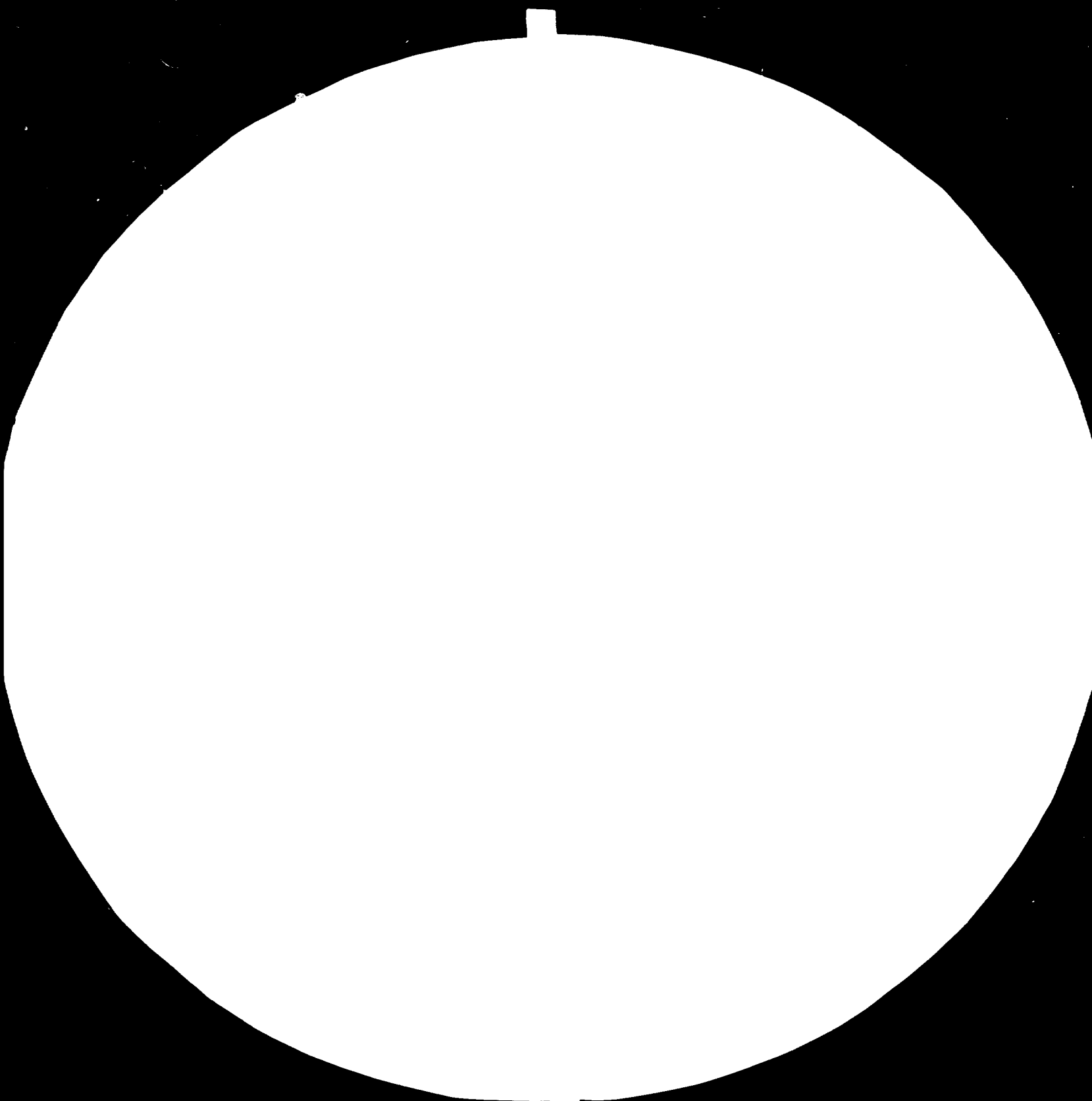
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

14262

(1 of 2)

**DEVELOPMENT OF
CAPITAL GOODS INDUSTRIES**

DP/TUR/76/034

TURKEY.

1983

Turkey.

TECHNICAL REPORT NO. XVII. - DEMAND FOR CAPITAL GOODS FOR COAL MINING .

M.M. Luthen

VOL. I

3692

DEVELOPMENT OF
CAPITAL GOODS INDUSTRIES
DP/TUR/76/034
TURKEY

Technical Report No. XVII: Demand for Capital Goods for Coal Mining

VOL. I.

Birleşmiş Milletler Kalkınma Programı

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DEVELOPMENT PROGRAMME IN TURKEY
UNIDO-CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

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It outlines the requirement of capital goods for the 17 mines currently visualised for this sector.

1.8. Volume I describes in brief, the work done, the methodology followed and gives samples of charts and formats besides summaries of capital goods demand, plant wise and year wise both by weight and value.

1.9. All the detailed data including Modular Production Diagrams, Production Activity Chart, Plant Survey Forms and year wise details of demand for capital goods for individual mines are in Volume II.

CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

NATIONAL PRIORITIES

USER INDUSTRIES

- POWER
 - Generation
 - Distribution
 - Transmission
- MINING (FERROUS NONFERROUS)
(COAL, CHEMICALS)
- PULP & PAPER
- CEMENT
- FOOD & BEVERAGES
- CHEMICALS & PETROCHEMICALS
- FERTILISERS & PESTICIDES
- RAILWAYS

Whose capital goods require for manufacture

MACHINE BUILDING INDUSTRIES

- MACHINE TOOLS METAL CUTTING FORMING
- " " " "
- DIESEL & PETROL ENGINES
- ELECTRIC MOTORS & INDUSTRIAL MACHINERY
- PUMPS & COMPRESSORS

Which require for manufacture

FACILITIES FOR HIGH ACCURACY
MACHINING & ASSEMBLY

AND

AND

INFRASTRUCTURE
STEEL FABRICATION
CASTINGS
FORGINGS
ELECTRONICS

Handwritten signature and notes

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DEVELOPMENT PROGRAMME IN TURKEY
UNIDO - CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

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for process industries, including coal mining. The technology and plant size for each plant have been considered and a mathematical model developed. The data has been codified under 15 digit codes and information transferred on to a computer programme. Using a computer system, it will be possible to identify common items to readily establish requirements first for each plant, then for the particular industry and finally for all industries.

Estimated cost data for each item has also been included in the programme.

Instruments and electrical requirements are not included in this study.

2.3. CLASSIFICATION OF INDUSTRY

2.3.1. COMMODITY CLASSIFICATION

The 4 digit Industrial Standard Industrial Classification of all Economic Activities of United Nations (ISIC) has been used as the basis for classification of different

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UNIDO- CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

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parameters of industry to suit the Turkish conditions. A fifth digit has been added to identify the specific commodity under consideration.

2.3.1.1. Code 2100 of ISIC covers the following:

"Code 2100 - Coal Mining

Mines primarily engaged in producing anthracite, bituminous coal, brown coal and lignite, and coal crushing, pulverizing, cleaning, screening, and sizing plants, whether or not operated in conjunction with the mines served. Also included is the agglomeration of coal and lignite into briquettes and other packaged fuels at mining sites. The manufacture of briquettes and other package fuels from purchased coal or lignite is classified in group 3540 (Manufacture of miscellaneous products of petroleum and coal).

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UNIDO- CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

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The mining and preparation of peat is classified in group 2909 (mining, and quarrying not elsewhere classified).

In this project, fifth digit (1) has been added to specify lignite for which the code is 2100.1.

2.3.2. MODULAR PRODUCTION CHART

This chart shows the use of raw materials, the resultant intermediated products, by-products, waste products and of course the final products.

It does not take into account the process used nor the type of machinery or plant capacities. The main products and by-products are indicated in a square and the waste products where identified, in an ellipse. Full lines joining any two represent a production module in which the machine pool exists. In case of more than one entry to the same production module, these multiple production lines converging for production modules are represented by a full production line. Each product (main, by-, intermediate or waste) has been given a two digit number. This is on page 27.

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UNIDO- CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

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2.3.3. INDUSTRY ACTIVITIES CHART

To classify and codify the process industries and production activities an industry activities chart showing the stages of production has been prepared for each main product. A cumulative 9 digit coding system consisting of SITC code for industry sector(4), main product(1), intermediate product or production stage (2), technology (1), capacity (1) has been used. As explained in Para 2.3.1., the 5th digit identifies the main product, a specific item in the sector covered by the relevant ISIC code. Out of the remaining 4 digits on the industry activity chart, the first 2 for intermediate products which are processed in a production module. The 8th and 9th digits are for the alternative technologies and capacities of a particular production module respectively. In addition the name of the critical equipment and its capacity (defined as the 8th digit of SITC Codification System which will be described later) are also shown on the chart. In case of more than one critical equipment determining the capacity the item with the highest value is

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UNIDO-CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

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CHAPTER III

PRODUCTION TARGETS AND INVESTMENT PROGRAMME

- 3.1. Production targets of T.K.I. mines for selected years 1980, 1988 and 1993 are shown in Table 1. Capacities for the future new and expanded mines are in the same table.
- 3.2. For meeting the anticipated production targets, the new mines expected to be set up are presented in Table 2 "Investment Programme 1981-1990".
- 3.3. The analysis of capital goods for coal mining sector is based on the data available for the above mines. It is however necessary to note that as detailed market research and feasibility reports are finalised, the actual capacity and hence the capital goods requirements may change. This methodology however has the flexibility to admit changes as and when they are finalised and revised data for a plant as a whole or for a part of the plant fed into computer files.

CAPITAL GOODS DEVELOPMENT PROJECTS IN TURKEY

Table No 1

PRODUCTION OF MINERALS

Product		Plant site	Capacity (t/y)		Production		
Code	Name		Present	Proposed	1980	1988	1993
ÇLi	Tunçbilek Idame Pr(o)	KUTAHYA	5.450.000	5.450.000	5.450.000	5.450.000	5.450.000
	Seyitömer Idame Pr(o)		5.500.000	5.500.000	5.500.000	5.500.000	5.500.000
	Seyitömer 4 th unite Pr(o)		-	1.250.000	-	1.250.000	1.250.000
	Mermerler Project (u)		-	1.000.000	-	1.000.000	1.000.000
ELİ	Soma-İşıklar (o+u)	İZMİR	-	2.500.000	-	2.500.000	2.500.000
	Soma-Daniş (o)		-	2.000.000	-	2.000.000	2.000.000
	Soma Idame Pr (o+u)		1.350.000	1.350.000	1.350.000	1.350.000	1.350.000
	Muğla-Nilas (o)		-	4.200.000	-	4.250.000	4.250.000
	Muğla-Bağcıca (o)		-	1.850.000	-	1.850.000	1.850.000
Muğla-Yatağan (o)	-	3.500.000	-	3.500.000	3.500.000		
BLİ	Bursa-Keles (o)	BURSA	-	1.600.000	-	1.800.000	1.800.000
	Bursa-Orhaneli (o+u)		-	1.600.000	-	1.600.000	1.600.000
OAL	Çayırhan (u)	BEYPAZARI	300.000	3.000.000	300.000	3.000.000	3.000.000
ÇLi	Çan (o)	ÇANAKKALE	-	3.835.000	-	3.835.000	3.835.000
SKLi	Kangal (o)	SİVAS	-	4.200.000	-	4.200.000	4.200.000
AEL	Afşin-Elbistan A (o)	ELBİSTAN	-	20.000.000	-	20.000.000	20.000.000
	Afşin-Elbistan B (o)		-	23.500.000	-		23.500.000

Note:
u : Underground
o : Open Pit

Table No 2

CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

INVESTMENT PROGRAMME (1981 - 1990)

Investment
 N- New Plant
 E- Expansion
 M- Modernisation
 R- Rehabilitation

Code	Product Name	Plant site	Capacity (t/y)		Investment	Y e a r s											
			Present	Proposed		1982	1983	1984	1985	1986	1987	1988	1989	1990	1991		
GLI	Tunçbilek Id.Pr. (o+u)	KUTAHYA	5.400.000	5.400.000	M+R												
	Seyitomer Id.Pr. (o)		5.500.000	5.500.000	M+R												
	Seyitomer 4th Un.Pr. (o)		-	1.250.000	E												
	Çöpler Pr. (u)		-	1.000.000	E												
ELI	Bursa-Bozlar (o)	IZMIR	-	2.000.000	M												
	Bursa-Bozlar (u)		-	700.000	M												
	Bursa-Bozlar (o)		-	2.000.000	M												
	Bursa Id.Pr. (o+u)		1.350.000	1.350.000	M + R												
	Bursa-Bozlar (o)		-	4.200.000	E												
	Bursa-Bozlar (o)		-	1.500.000	M												
ELI	Bursa-Bozlar (o)	BURSA	-	1.800.000	E												
	Bursa-Bozlar (o)		-	800.000	E												
	Bursa-Bozlar (u)		-	900.000	E												
OAL	Çayirhan (u)	BEYPAZARI	300.000	3.000.000	E												
GLI	Çan (o)	PAZARCALE	-	3.535.000	N												
SKLI	Kangal (o)	SIVAS	-	4.200.000	M												
ASL	Afşin-Elbistan A (o)	ELBISTAN	-	20.000.000	N												
	Afşin-Elbistan B (o)		-	23.500.000	N												

Note : u: Underground
 o: Open Pit

UNIDO-CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

TABLE No.3

SUMMARY OF DEMAND FOR CAPITAL GOODS(1981-1990)
by weight (ton)

Page 21

MINE	YEARS										Total 1981-1990	Plate Fabric	Machines	
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990				
A. NEW MINES														
ELI-Soma Isiklar	9.136											9.236	100	9.036
ELI-Denis	7.471											7.471	100	7.371
ELI-Sekköy	11.008											11.008	80	10.928
ELI-Bagyaka	11.097											11.097	100	10.997
ELI-Yataşan	11.212											11.212	-	11.212
BLI-Keles	13.737											13.737	120	13.617
BLI-Orhaneli	14.955											14.955	-	14.955
ÇLI-Çan	23.940											23.940	120	23.820
SKLI-Kangal	16.335											16.335	80	16.255
AEL-Elbistan A	8.510											8.510	-	8.510
AEL-Elbistan B								8.510				8.510	-	8.510
TOTAL A	127.401							8.510				135.911	700	135.211
B. EXPANSION														
GLI-Sevitömer 4th.		6.709										6.709	80	6.629
GLI-Ömerler		1.712										1.712	-	1.712
OAL-Çayırhan		1.945										1.945	-	1.945
TOTAL B		10.366										10.366	80	10.286

UNIDO-CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

SUMMARY OF DEMAND FOR CAPITAL GOODS (1981-1990)
by weight (ton)

Table No. 3

Page 22

MINE	YEARS										Total 1981-1990	Plate Fabrnc.	Machines
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990			
C. MODERNIZATION AND REHABILITATION													
GLI-Tuncbilek		8.806									8.806	-	8.806
GLI-Seyitomer		4.676									4.676	-	4.676
ELI-Sema Idame		3.400									3.400	-	3.400
TOTAL C		16.882									16.882		16.882
TOTAL A+B+C	127.401	27.248						8.510			163.159	780	162.379

UNIDO-CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

TABLE NO.4

SUMMARY OF DEMAND FOR CAPITAL GOODS (1981-1990)
by value (1000 US \$)

Page 23

MINE	YEAR										TOTAL 1981-1990	Plate Fabricated	Machines
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990			
A. NEW MINES													
ELI-Soma İşiklar	31.584										31.584	120	31.464
ELI-Denis	26.766										26.766	120	26.646
ELI-Sekkü	69.805										69.805	96	69.709
ELI-Bağyaka	54.901										54.901	120	54.781
ELI-Yatağan	55.723										55.723	-	55.723
BLI-Keles	45.829										45.829	144	45.685
BLI-Orhaneli	72.848										72.848	-	72.848
ÇLI-Çan	100.546										100.546	144	100.402
SKLI-Kangal	71.959										71.959	96	71.863
AEL-Elbistan A	157.518										157.518	-	157.518
AEL-Elbistan B							157.518				157.518	-	157.518
TOTAL A	687.479						157.518				844.997	840	844.157
B. EXPANSION													
GLI-Seyitömer 4th		24.070									24.070	96	23.974
GLI-Ömerler		7.046									7.046	-	7.046
OAL-Çayırhan		5.126									5.126	-	5.126
TOTAL B		36.242									36.242	96	36.146

UNIDO-CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

Table No. 4

SUMMARY OF DEMAND FOR CAPITAL GOODS (1981-1990)
by value (1000 US\$)

Page 24

MINE	YEARS										Total 1981-1990	Plate Fabricated	Machines	
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990				
<u>C. MODERNIZATION AND REHABILITATION</u>														
GLI-Tuncbilek		51,129									51,129	-	51,129	
GLI-Seyitomer		16,500									16,500	-	16,500	
ELI-Soma Idame		13,480									13,480	-	13,480	
TOTAL C		81,109									81,109	-	81,109	
TOTAL A+B+C	687, 479	117,351					157.518				962.348	936	961.412	

UNIDO-CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

SUMMARY OF DEMAND FOR CAPITAL GOODS(1991-2000)
by weight(Ton)

TABLE NO.5
Page 25

MINE	YEARS										Total 1991-2000	Plate Fabricated	Machines
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000			
REPLACEMENT													
ELI-Sekköy	1.600	3.050	-	-	400	-	4.170	-	-	-	9.220	-	9.220
ELI-Soma	-	625	3.260	-	-	300	-	2.670	-	-	6.855	-	6.855
BLI-Orhaneli	2.390	-	400	-	-	2.660	-	-	1.025	-	6.475	-	6.475
BLI-Keles	6.460	-	400	-	-	5.040	-	-	25	1.100	13.025	-	13.025
SKLI-Kangal	6.320	-	300	-	-	6.260	-	-	75	1.400	14.355	-	14.355
ELI-Bağyaka	5.720	-	800	-	-	3.300	-	-	25	-	9.845	-	9.845
ELI-Deniz	-	625	3.260	-	-	300	-	2.670	-	-	6.855	-	6.855
AEL-Elbistan A	-	-	-	-	-	-	-	-	-	-	-	-	-
AEL-Elbistan B	-	-	-	-	2.720	-	-	-	-	-	2.720	-	2.720
ÇLI-Çan	-	1.300	11.460	-	-	400	-	9.320	-	-	22.480	-	22.480
ELI-Yatağan	4.820	-	400	-	-	2.530	-	-	50	1.400	9.200	-	9.200
TOTAL	27.310	5.600	20.280	-	3.120	20.790	4.170	14.660	1.200	3.900	101.030	-	101.030

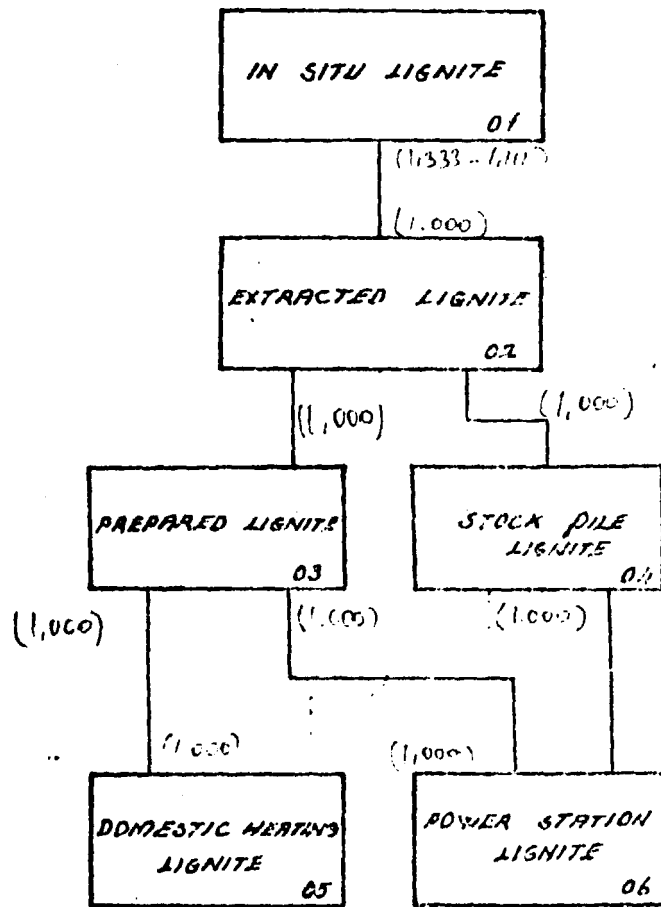
UNIDO-CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

TABLE NO.6

SUMMARY OF DEMAND FOR CAPITAL GOODS(1991-2000)
by value (1000 US \$)

Page 26

MINE	YEAR										Total 1991-2000	Plate Fabricated	Machines
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000			
<u>REPLACEMENT</u>													
ELI-Sekköy	7.290	14.170	-	-	1.382	-	9.455	-	-	-	32.207	-	32.207
ELI-Soma	-	2.760	14.620	-	-	1.229	-	6.385	-	-	24.994	-	24.994
BLI-Orhaneli	11.390	-	1.382	-	-	6.498	-	-	4.560	-	23.830	-	23.830
BLI-Keles	25.590	-	1.382	-	-	12.378	-	-	60	4.950	44.360	-	44.360
SKLI-Kangal	28.320	-	1.229	-	-	15.518	-	-	180	6.300	51.547	-	51.547
ELI-Bağyaka	24.790	-	2.764	-	-	7.892	-	-	60	-	35.506	-	35.506
ELI-Deniz	-	2.760	14.620	-	-	1.229	-	6.385	-	-	24.994	-	24.994
AEL-Elbistan B	-	-	-	-	14.204	-	-	-	-	-	14.204	-	14.204
ÇLI-Çan	-	5.640	50.020	-	-	1.382	-	23.012	-	-	80.054	-	80.054
ELI-Yatağan	21.240	-	1.382	-	-	6.249	-	-	120	6.300	35.291	-	35.291
TOTAL	113.530	25.330	87.399	-	15.586	67.961	9.455	35.782	4.980	17.550	366.987	-	366.987



COAL MINING - LIGNITE		COMMODITY CODE
		2100 1
UNIDO/SPO (T.K.I.)		
CAPITAL GOODS DEVELOPMENT PROJECT		
MODULAR PRODUCTION DIAGRAM		
PREPARED BY	DRAWN BY	CHECKED BY
Selman Kırkcı	Metin Gedeli	Uğur Arıbaş
DATE	CHECKED BY	APPROVED BY
April, 1982	Jan Markus	M. Lutten

UNIPOL/SPD (S.K.K.)
CAPITAL CONG DEVELOPMENT PROJECT IN TURKEY

COMMODITY CODE : 2100 1
COMMODITY NAME : Coal Mining-lignite

PREPARED BY Selman Koculu	CHECKED BY Selman Koculu	APPROVED BY M. Luther
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PRODUCTION ACTIVITIES CHART

PRODUCTION STAGE		TECHNOLOGY		CRITICAL EQUIPMENT		DESIGN LINE CAPACITY	
Code	Name	Code	Name	Name	Capacity Range	Code	Capacity t/h
02	Extracted lignite	1	Open pit mining	Electric excavator	Bucket capacity ¹⁰⁻ (15 m ³)	1	120.4 ELL Orhanelli
			"	"	"	2	333.3 ELL Keles
			"	"	"	3	370.4 ELL Soma-Işıkli
			"	"	"	4	648.1 ELL Yatağan
			"	"	"	5	710.2 ÇLI Çan
			"	"	"	6	177.8 SKLI Kangal
		2	Open pit mining	Jacket wheel excavator	Bucket capacity 10 x 2,3 m ³	1	4.549 AEL Elbistan B
		3	Underground Mining	Mining locomotive	Power 67 KW	1	94.6 ELL Soma-Işıkli
			"	"	"	2	179.9 ELL Orhanelli
03	Prepared lignite	1	Crushing	Impact Crusher	600 t/h	1	245.3 ELL Orhanelli
			"	"	"	2	379.6 ELL Keles
			"	"	"	3	444.4 ELL Soma-Işıkli
			"	"	"	4	640.7 ELL Yatağan
04	Stock piled lignite					5	704.6 ÇLI Çan
						6	766.6 SKLI Kangal
05	Domestic Heating lignite	1	Handling	Stacker	5000 t/h	1	4.549 AEL Elbistan B
		1	Conveying	Belt Conveyor	500 t/h	1	40.7 ELL Keles
						2	48.5 ELL Orhanelli
						3	50.0 ÇLI Çan
						4	62.9 ELL Yatağan
						5	100.0 SKLI Kangal
06	Power station lignite					6	185.3 ELL Soma-Işıkli
		1	Conveying	Belt Conveyor	500 t/h	1	221.5 ELL Orhanelli
						2	260.0 ELL Soma-Işıkli
						3	288.9 ELL Keles
				4	577.6 ELL Yatağan		
				5	854.6 ÇLI Çan		
				6	666.0 SKLI Kangal		
				7	4.549 AEL Elbistan B		

IN SITU LIGNITE
01



EXTRACTED LIGNITE
02

Capacity Calculation

Name of Critical Equipment Mining Locomotive
 Design Theoretical Capacity of the
 Critical Equipment 67 KW
 No of Critical Equipment
 Design line Capacity Per Hour 179,9 t
 Design line Capacity Per Shift 1,439 t
 Design line Capacity Per Day 2,373 t
 Design line Capacity Year 950,000 t

ACTIVITY CODE		COMMODITY	PROD.	TECH.	CAP.
		2100 1	02	3	2
NO	Machine Name	Machine Code		Qty.	
1	Power Transformer	271111044	215952	6	
2	Drilling Machine	223432062	2015931	1	
3	Mine Fans	243421061	113942	2	
4	Air Compressor	243130255	113652	4	
5	Centrifugal Pump	2422011333	14651	27	
6	Auxiliary Fan	243411033	111921	40	
7	Mid and Eric. Props	223530052	2001912	5625	
60	Cross Bar Conveyor	244261372	204952	97	
61	Material Winch	244210477	2025952	22	
62	Trolley Locomotive	223520436	416932	6	
80	Road Header	223431155	425942	2	

UNIDO/SPOI (T.K.I.)

CAPITAL GOODS DEVELOPMENT PROJECT

MODULAR PROCESS FLOW DIAGRAM

INDUSTRY	PRODUCT	TECHNOLOGY
Coal Mining	Extracted Lignite	Underground M.
DATE	SAMPLE PLANT	CAPACITY
April, 1982	BLI Orhaneli	179,9 t/h
PREPARED BY	DRAWN BY	CHECKED BY
Selman Kürkçü	Metin Gedeli	Ugur Aribas
CHECKED BY	APPROVED BY	
Jan Malkus	M. Luther	

UNIDO/SPO (T.K.I.)

CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

PLANT SURVEY FORM

Sample Plant: SIZ-REERS

PRODUCTION ACTIVITY Code 310010212

Sr. No.	Mark/Model	Basic Machine Nomenclature	Major Specific (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac. Characteristic-1	Manufac. Characteristic-2	Manufac. Characteristic-3	Origin	Qty	Purchase Cost (in Thousands) And Currency		Constant 1980 Year Cost US\$ (in Thousand)		Year of Purchase and Remarks	SITC Code (For Computer)											
							WT (Tons)	MATL	WT (Tons)			Unit	Total	Unit	Total		1	2	3	4	5	6	7	8	9	0		
							8	9	10			11	12	13	14		15	16	17	18								
1		Drilling Mach.	500 mm	250 mm	-	Rubber Tired	60	Steel Fab.	-	Imp.	1	\$ 500	\$ 500	\$ 500	\$ 500	1980	72343	20	62015931									
2		Sheet Hole Drill Mach.	128 mm	20 mm	175KW	Crawler	30	Steel Fab.	15	Imp.	4	\$ 450	\$1600	\$ 450	\$1800	1980	72343	01	67624942									
3		Electric EXCAVATOR	7 m ³	9 m ³	500KW	Crawler	600	Steel Fab.	60	Imp.	8	\$1500	\$12000	\$1500	\$12000	1980	72342	50	55829982									
4		Wheel loader	6 m ³	5 m ³	250KW	Rubber-Tired	50	Steel Fab.	10	Imp.	2	\$ 470	\$ 940	\$ 470	\$ 940	1980	72342	00	52515952									
5		Draxline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
6		Roller	300 mm	270mm	-	Crawler	40	Steel Fab.	8	Imp.	12	\$ 200	\$ 2400	\$ 200	\$ 2400	1980	72341	00	66024942									
7		Motor loader	20 m ³	40m ³	-	Rubber-Tired	8	Steel Fab.	1	Imp.	4	\$ 150	\$ 600	\$ 150	\$ 600	1980	72341	10	47012922									
8		Centrifugal Pump	45m ³	75m	Gold Dicky Giddy	Vertical	30	Carbon Steel Fab.	4	Imp.	4	\$ 7	\$ 42	\$ 7	\$ 42	1980	74220	11	33314632									
9		Ball mill	1m	70	125 KW	Rubber Tired	20	Steel Fab.	-	Imp.	1	\$ 120	\$ 120	\$ 120	\$ 120	1980	72342	20	23213931									
10		Truck Trailer	45 ton	80KW/h	-	-	25	Steel Fab.	-	Turk.	1	\$ 60	\$ 60	\$ 60	\$ 60	1980	74411	03	37003931									
11		Dump Truck	85 ton	80KW/h	-	-	100	Steel Fab.	30	Imp.	37	\$ 350	\$ 19550	\$ 350	\$19950	1980	74411	20	67006972									
12		Bolton Dump Truck	120 ton	80KW/h	-	-	100	Steel Fab.	30	Imp.	17	\$ 450	\$ 4950	\$ 450	\$4950	1980	74411	20	67006972									
13		AN/70 Truck	10 ton	70KW/h	-	-	25	Steel Fab.	3	Turk.	1	\$ 60	\$ 60	\$ 60	\$ 60	1980	74411	10	65004931									
14		Mobile Crane	75 ton	60m	Single Hoist	Others	40	Steel Fab.	15	Imp.	1	\$ 50	\$ 50	\$ 50	\$ 50	1980	74422	21	56194962									

Fabricated equipment

SITC Code 62241 - Casks, drums, cans, boxes and similar containers of sheet or plate iron or steel of a description commonly used for the conveyance or packing of goods.

5-7		8	9	10	11	12	13	14	15
Basic Machine Nomenclature		Major Specification (Capacity)	Major Spec.-1 Optional	Major Spec.-2 Optional	Type	Manufacturing characteristic -1	Manufacturing characteristic -2	Manufacturing characteristic -3	Origin
Code	Name	Cubic meters (m ³)	Code	Temperature °C	Description	Weight (tons)	Main body materials	Plate thickness mm.	Code
01	Boxes	1 Upto 10		1. Above 500	1. Rectangular/ cubic	1. Upto 5	1. Mild steel upto 0.20 carbon	1. Upto 20	1. Turkey
02	Cans	2 10-25		2. 500-1000		2. 5-10		2. 20-40	2. Imported
03	Casks	3 25-50		3. 1000-	2. Circular cylindrical, semi-cylindrical, elliptical	3. 10-25	(untested quality)	3. 45-50	
04	Containers	4 50-75		4. 0-(-25)		4. 25-50		4. Over 50	
05	Drums	5 75-100		5. (-25)-(-50)		5. 50-100	2. Carbon steel above 0.20 C tested quality		
06	Vessels	6 100-150		6. (-50)-(-100)		6. 100-200			
07	Vessels (lined)	7 150-200		7. (-100)-(-120)		7. 200-300			
08	Pots	8 200-300		8. (-120)-(-170)	3. Spherical	8. 300-500	3. Boiler steel		
09	Others (n/a)	9 Over 300		9. Below (-170)	9. Others (n/a)	9. Over 500	4. Alloy steel 5. High alloy steel 6. Stainless steel 7. Non-ferrous materials 9. Others		

LHJC/SPC TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT EXPANSION AND MODERNIZATION
 PLANT NAME : T.K.1 TOTAL
 PLANT CAPACITY :
 LOCATION : LANAKALE HARAS KUTAHYA 17MR SIVAS ANHARA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT WEIGHTS IN TONS

WEIGHT BASIS 1981-1990 YEARS

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SITC CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	TOT. WT
7231	MOTOR GRADER	259	6440.0	1780.0		560.0			8,280.0
7232	BUCKET WHEEL EXCAVATOR	154	45860.0	3170.0		4200.0			57,910.0
7233	DRILLING MACHINE	103	2490.0	380.0		60.0			3,570.0
7234	DRILLING MACHINE	14	780.0	60.0					840.0
7235	TROLLEY LOCOMOTIVE	3	900.0	300.0					300.0
7236	TROLLEY LOCOMOTIVE	25	191.0	1630.0					2,500.0
7237	MID-AND ERIC.PROP	14735	2000.0	178.0					369.0
7238	VIBRATORY GRITZLY	22	850.0	200.0					2,700.0
7239	IMPACT CRUSHER	18	2710.0	50.0					900.0
7420	CENTRIFUGAL PUMP	130	60.0	1455.0		60.0			4,725.0
7421	AIR COMPRESSOR	8	630.0	20.0					80.0
7422	AUXILIARY FAN	110	40.0	270.0					900.0
7423	MINE FAN	6	40.0	20.0					60.0
7424	TRUCK TRAILER	610	48370.0	3745.0		1540.0			59,655.0
7425	MATERIAL WINCH	62	1200.0	1900.0					3,100.0
7426	MOBILE CRANE	11	360.0	40.0		40.0			440.0
7427	GRASS BAR CONVEYOR	199	12450.0	510.0		800.0			13,750.0
7428	STACMER	10	1250.0	400.0		1250.0			2,500.0
7711	PUMPER TRANSFORMATOR	17	450.0						850.0

TOTALS

1981	126,701.0
1982	27,168.0
1983	
1984	
1985	
1986	
1987	8,510.0
1988	
1989	
1990	
GRAND TOTAL=	162,379.0

UNIDOC/SPO TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : T.K.W. TOTAL
 UNIT WEIGHTS IN TONS

WEIGHT BASIS 1991-2000 YEARS
 COMMODITY CODE : 2100 1

SITE CODE	BASIC MACHINE NAME	QT	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.WE
72341	BULDOZER	151	2360	560	2560		560						5500
72342	ELECTRIC EXCAVATOR	102	450	50	400		600	18740	3620	13880			37740
72343	BLAST HOLE DRILL MACHINE	70	1220	180	780								2180
72344	DRILLING MACHINE	14	480	60	240		60						840
72821	VIBRATORY GRIZZLY	20			1200		200	600					2000
72822	IMPACT CRUSHER	17						450	100	300			850
74220	CENTRIFUGAL PUMP	53						600	450	480			1540
74411	JUMP TRUCK	492	22800	4750	14000		1500				1200	3900	48160
74425	STEEL PLATE CONVEYOR	17			1100		200	400					1700

TOTALS
 1991 27.310
 1992 5.500
 1993 20.280
 1994
 1995 3.120
 1996 20.790
 1997 4.170
 1998 14.060
 1999 1.200
 2000 3.900
 GRAND TOTAL= 101.030

UNIDO/SPC TURKISH COAL WORKS (T.K.W.)
CAPITAL GOODS DEVELOPMENT PROJECT COMMODITY CODE : 2100 1
FABRICATED REQUIREMENTS FOR THE NEW PLANT EXPANSION AND MODERNIZATION
PLANT NAME : T.K.W. TOTAL
PLANT CAPACITY :
LOCATION : UNKARSALE MARIAS KUTAHYA IZMIR SIVAS ANKARA
ANTICIPATED DATE OF COMMISSIONING :
UNIT COST IN 1990 U.S.D. DOLLARS

SITE CODE	BASIC MACHINE NAME	QT
*****	*****	*****
53211	WASTE BURNER	39

1981

8402030.

TOTALS	
1981	840.000
1982	95.000
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	
GROSS TOTAL =	935.000

CJST-BASIS

1981-1990 YEARS

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1982	1983-1987	1988	1989 1990	TOT.CO
*****	*****	*****	*****	*****
96.000				936.000

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COST-BASIS 1981-1990 YEARS

UNIDC/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT EXPANSION AND MODERNIZATION
 PLAN NAME : T.K.W. TOTAL
 PLANT CAPACITY :
 LOCATION : CAGKAKALE MARAS KUTANJA 1241R SIVAS ANKARA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1980 U.S.A. DOLLARS

SITC CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	TOTAL
72341	BUCKET GRADER	259	37700.000	8050.000		2800.000		48350.000	48350.000
72342	BUCKET WHEEL EXCAVATOR	154	299684.640	39410.000		73784.600		452879.240	452879.240
72343	DRILLING MACHINE	103	33720.000	14330.000		500.000		48550.000	48550.000
72343	DRILLING MACHINE	14	6500.000	300.000				7300.000	7300.000
72351	TROLLEY LOCOMOTIVE	3	900.000	1600.000				3100.000	3100.000
72352	TROLLEY LOCOMOTIVE	25	1441.125	1343.790				2785.915	2785.915
72353	MIND AND FRIC. PRNP	14735	10760.000	1076.000				11836.000	11836.000
72353	VIBRATORY GRIZZLY	22	1955.000	115.000				2070.000	2070.000
72812	IMPACT CRUSHER	18	1011.000	1350.000		14.000		2375.000	2375.000
74220	CENTRIFUGAL PUMP	130	7340.000	780.000				8120.000	8120.000
74212	AIR COMPRESSOR	8	100.000	120.000				220.000	220.000
74341	AUXILIARY FAN	110	640.000	320.000				960.000	960.000
74342	MINE FAN	6	177700.000	320.000		5370.000		218340.000	218340.000
74351	TRUCK TRAILER	619	9600.000	15200.000				24800.000	24800.000
74421	MATERIAL JIBCH	62	430.000	50.000				480.000	480.000
74422	MOBILE CRANE	11	408974.56	645.000				409619.56	409619.56
74426	GRASS BAR CONVEYOR	199	20863.193	96.000				20959.193	20959.193
74428	STACHER	10	108.000					108.000	108.000
77111	POWER TRANSFORMATOR	17		96.000				96.000	96.000

TOTALS

1981	687.638.414
1982	117.255.790
1983	
1984	
1985	
1986	
1987	
1988	157.517.379
1989	
1990	
GRAND TOTAL	961.411.3

UNIDC/SFC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : T.K.W. TOTAL
 UNIT COST IN 1990 USA DOLLARS

COMMODITY CODE : 2100 1

COST BASIS 1991-2000 YEARS

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SITC CODE	BASIC MACHINE NAME	QT	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.CO
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
72341	BULLDOZER	151	11800	2800	12800		2800						30200
72342	ELECTRIC EXCAVATOR	102	4230	470	3760		5640	47360	9120	34980			105560
72342	BLAST HOLE DRILL MACHINE	70	17100	2700	11700								31500
72343	DRILLING MACHINE	14	4000	500	2000		500						7000
72831	VIBRATORY GRIZZLY	20			6456		1076	3228					10760
72832	IMPACT CRUSHER	17						1035	230	690			1955
74220	CENTRIFUGAL PUMP	53					14	140	105	112			371
74411	JUMP TRUCK	492	81400	18960	49000		5250				4980	17550	177040
74426	STEEL PLATE CONVEYOR	17			1683		306	612					2601

TOTALS
 1991 113,530
 1992 25,330
 1993 87,399
 1994
 1995 15,586
 1996 52,375
 1997 9,455
 1998 35,782
 1999 4,980
 2000 17,550
 GRAND TOTAL= 366,987

UNIC/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT EXPANSION AND MODERNIZATION
 PLANT NAME : T.K.W. TOTAL
 PLANT CAPACITY :
 LOCATION : CAKAKKALE MARAS KUTAHYA IZMIR SIVAS ANKARA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT WEIGHTS IN TONS

WEIGHT_RATIOS 1981-1990 YEARS PAGE: 1
 1981 1982 1983 1987 1988 1989 1990 TOT.WE

 420.0 40.0 420.0
 320.0 40.0 360.0

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COMMODITY CODE : 2100 7
 EXPENSIVE AND MODERNIZATION

SITE CODE BASIC MACHINE NAME QT *****

 43211 C222313021 COAL LOADING RUNNER 21 380.0
 59211 C223313021 WASTE BUMPER 10 320.0

TOTALS
 1581 700.0
 1582 80.0
 1583
 1584
 1585
 1586
 1587
 1588
 1589
 1590
 GRAND TOTAL= 780.0

UNIT/SPC TUNJALIA COAL WORKS (T.K.-1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT EXPANSION AND MODERNIZATION
 PLANT NAME : T.K.-1 TOTAL
 PLANT CAPACITY :
 LOCATION : CANGKALE HARAS PUTAYYA 17MR SEVAH ANWARA
 ANTICIPATED DATE OF COMPLETIONING :
 UNIT WEIGHTS IN TONS

WEIGHT-BASIS 1981-1990 YEARS

SIT. CODE	BASIC MACHINE NAME	QTY	1981	1982	1983-1987	1988	1989	1990	TOT. WT
*****	*****	****	*****	*****	*****	*****	*****	*****	*****
72341	CG66024342 BULLDOZER	174	6040.0	1163.0		560.0			7.760.0
72341	1C47012342 MOTOR GRADER	2		16.0					16.0
72341	1C470.2372 MOTOR GRADER	63	400.0	104.0					504.0
72342	CG4313342 WHEEL LOADER	24	600.0			600.0			1.700.0
72342	CG2513332 WHEEL LOADER	75	900.0	150.0					1.250.0
72342	2C2323331 BACKHOE EXCAVATOR	13	240.0	70.0					260.0
72342	3C5533332 DRAGLINE	4	4200.0	400.0					4.800.0
72342	5C6523332 ELECTRIC EXCAVATOR	72	36000.0	7700.0					43.700.0
72342	6C3523332 BUCKET WHEEL EXCAVATOR	12	3600.0			3600.0			7.200.0
72343	C16762332 BLAST HOLE DRILL MACHINE	87	2100.0	310.0					2.610.0
72343	115542332 ROAD HEADER	5	2700.0	50.0					250.0
72343	2C1313331 DRILLING MACHINE	2	60.0			60.0			120.0
72343	2C6201331 DRILLING MACHINE	9	120.0	470.0					540.0
72343	2C6013331 DRILLING MACHINE	14	780.0	60.0					840.0
72351	C43641332 TROLLEY LOCOMOTIVE	3	900.0	300.0					300.0
72352	C43641332 TROLLEY LOCOMOTIVE	25	900.0	1300.0					2.500.0
72353	CG5203312 MID. AND FRIC. PRMP	14735	191.0	178.0					369.0
72353	C15503372 VIBRATORY GRIZZLY	22	2000.0	733.0					2.700.0
72353	C36461332 IMPACT CRUSHER	18	850.0	50.0					900.0
72320	111331332 CENTRIFUGAL PUMP	6	180.0	180.0					180.0
72320	113331332 CENTRIFUGAL PUMP	59	1590.0	120.0			60.0		1.770.0
72320	113331331 CENTRIFUGAL PUMP	65	1120.0	1155.0					2.275.0
74313	CG5511332 AIR COMPRESSOR	8	60.0	20.0					80.0
74341	1C3311321 AUXILIARY FAN	110	630.0	270.0					900.0
74342	1C6111342 MINE FAN		40.0	20.0					60.0

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UNID/SPC TURKISH COAL WORKS (T-K-K-T)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT EXPANSION AND MODERNIZATION
 PLANT NAME : T-K-K-T TOTAL
 PLANT CAPACITY :
 LOCATION : CAKIRKALE HARAS KUTAHYA IZMIR STIVAS ANKARA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QTY	1981	1982	1983-1987	1988	1989	1990	TOTAL
74411	106503031 AU/FO TRUCK	15	350.0	25.0					375.0
74421	205700072 DUMP TRUCK	30	1500.0			1500.0			3.000.0
74411	206700072 DUMP TRUCK	560	46300.0	9700.0					56.000.0
74411	303700031 TRUCK TRAILER	10	180.0	20.0					200.0
74411	304700031 TRUCK TRAILER	4	40.0			40.0			80.0
74421	047702052 MATERIAL WAGON	62	1200.0	1900.0					3.100.0
74422	215613052 MOBILE CRANE	11	360.0	40.0					440.0
74425	012016072 BELT CONVEYOR	37	3500.0	200.0					3.700.0
74426	019401092 BELT CONVEYOR	4	800.0			800.0			1.600.0
74426	057200072 BELT CONVEYOR	35	3300.0	200.0					3.500.0
74425	117201072 STEEL PLATE CONVEYOR	18	1700.0	100.0					1.800.0
74426	137201052 GRASS BAR CONVEYOR	175	3150.0						3.150.0
74425	039002702 STACKER	10	1250.0			1250.0			2.500.0
77111	104420052 POWER TRANSFORMATOR	17	450.0	400.0					850.0

TOTALS
 1581 126,701.0
 1582 27,168.0
 1583
 1584
 1585
 1586
 1587 8,510.0
 1588
 1589
 1590
 GRAND TOTAL = 162,379.0

UNIDOC/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : T.K.W. TOTAL
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 2100 1
 WEIGHT BASIS 1991-2000 YEARS

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SITC CODE	BASIC MACHINE NAME	QT	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.WE
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
72341	0000024942 BULLDOZER	151	2360	560	2560		560						5500
72342	0052515952 WHEEL LOADER	30	450	50	400		600						1500
72342	2023213991 BACHEE EXCAVATOR	12						140	20	80			240
72342	5065025992 ELECTRIC EXCAVATOR	60						18600	3600	13800			36000
72343	0167624992 BLAST HOLE DRILL MACHINE	70	1220	180	780								2180
72343	0000015991 DRILLING MACHINE	14	480	60	240		60						840
72831	0169016992 VIBRATORY GRIZZLY	20			1200		200	600					2000
72832	0354615992 IMPACT CRUSHER	17						450	100	300			850
74220	1133314992 CENTRIFUGAL PUMP	53						600	450	480			1540
74411	1055034991 AN/FO TRUCK	14		150							200		360
74411	2067004992 DUMP TRUCK	269	16300	2800	2400		1500					3900	26900
74412	2067003992 DUMP TRUCK	209	6500	1800	11600						1000		20900
74426	1172016992 STEEL PLATE CONVEYOR	17			1100		200	400					1700

TOTALS
 1991 27.310
 1992 5.600
 1993 20.280
 1994
 1995 3.120
 1996 20.790
 1997 4.170
 1998 14.660
 1999 1.200
 2000 3.900
 GRAND TOTAL= 101.030

JNIDC/SPC TURKISH COAL WORKS (T.K.W)
 CAPITAL GOODS DEVELOPMENT PROJECT COMMODITY CODE : 2100 1
 FABRICATED REQUIREMENTS FOR THE NEW PLANT EXPENSION AND MODERNIZATION
 PLANT NAME : T.K.W TOTAL
 PLANT CAPACITY :
 LOCATION : CAKAKALE HARAS MUTAHYA IZMIR SIVAS ANKARA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1990 U.S.A. DOLLARS

SITC CODE	BASIC MACHINE NAME	QT	1981
*****	*****	****	*****
69211 022311321	COAL LOADING BUNKER	21	456.000
59211 022311321	WASTE BUNKER	18	384.000

T O T A L S

1991 840.000
 1982 90.000
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL= 936.000

COST-BASIS

1981-1990 YEARS

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1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
48.000				514.000
48.000				432.000

JNIOC/SPO TURKISH COAL WORKS (T.K.I.)
 CAPITAL GOODS DEVELOPMENT PROJECT COMMODITY CODE : 2100 1
 MACHINERY REQUIREMENTS FOR THE NEW PLANT EXPANSION AND MODERNIZATION
 PLANT NAME : T.K.I TOTAL
 PLANT CAPACITY :
 LOCATION : CAIANKALE MARAS KUTAHYA IZMIR SIVAS ANKARA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1980 U.S.A. DOLLARS

SITC CODE	BASIC MACHINE NAME	QT	1981
*****	*****	****	*****
72341 005602492	BULLDOZER	194	30200.000
72341 1047012362	MOTOR GRADER	2	
72341 1047012372	MOTOR GRADER	63	7500.000
72342 0041315342	WHEEL LOADER	24	5640.000
72342 0052515352	WHEEL LOADER	25	8460.000
72342 2023213361	BACKHOE EXCAVATOR	13	1440.000
72342 3015939332	DRAGLINE	8	126000.000
72342 5065829332	ELECTRIC EXCAVATOR	72	90000.000
72342 6035027932	BUCKET WHEEL EXCAVATOR	12	68144.640
72343 0267624332	BLAST HOLE DRILL MACHINE	87	31500.000
72343 1155425362	ROAD PAVER	5	720.000
72343 2013015331	DRILLING MACHINE	2	500.000
72343 2063015331	DRILLING MACHINE	9	1000.000
72343 2060015331	DRILLING MACHINE	14	6500.000
72351 0436415332	TROLLEY LOCOMOTIVE	3	
72352 0436415332	TROLLEY LOCOMOTIVE	25	900.000
72353 0052001312	RID. AND FRIC. PROP	14735	1441.125
72831 0165015372	VIBRATORY GRIZZLY	22	10760.000
72832 0364615332	IMPACT CRUSHER	18	1955.000
74220 1113314532	CENTRIFUGAL PUMP	6	
74220 1133314532	CENTRIFUGAL PUMP	59	371.000
74220 1133314551	CENTRIFUGAL PUMP	65	640.000
74312 0255113352	AIR COMPRESSOR	8	2340.000
74341 1033111321	AUXILIARY FAN	110	100.000
74342 1061113342	MINE FAN	6	640.000

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1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TCT.CO *****
5300.000		2800.000		38.800.000
300.000				300.000
1350.000				9.450.000
		5000.000		11.780.000
1290.000				11.750.000
120.000				1.560.000
18300.000				144.000.000
18300.000				108.000.000
		68144.600		136.289.240
7650.000				39.150.000
180.000				900.000
		500.000		1.000.000
3500.000				4.500.000
500.000				7.000.000
300.000				300.000
1600.000				2.500.000
1343.790				2.784.915
1076.000				11.836.000
115.000				2.070.000
42.000				47.000
28.000		14.000		413.000
980.000				1.620.000
780.000				3.120.000
120.000				220.000
320.000				960.000

COST-BASIS 1981-1990 YEARS

COMMODITY CODE = 2100 1

INDICATOR: IRRADIATION WORKS (172.1)

CAPITAL GOODS DEVELOPMENT PROJECT
MACHINERY REQUIREMENTS FOR THE NEW PLANT EXPANSION AND MODERNIZATION
PLANT NAME: TANKI TOTAL
PLANT CAPACITY:
LOCATION: KARAKORUM MOUNTAINS, KOTAIYA, 17MIR, SIMAS, ARAKSA
ANTICIPATED DATE OF COMPLETION: 8
UNIT COST IN 1000 U.S.A. DOLLARS

SITE CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	TOT. CO
74421	TRUCK	15	850.000	60.000					910.000
74421	TRUCK	30	5250.000			720.000			10.500.000
74421	TRUCK	50	177950.000	5150.000					206.100.000
74421	TRUCK TRAILER	10	560.000	60.000		120.000			740.000
74421	TRUCK TRAILER	4	120.000						480.000
74421	MATERIAL WINCH	62	9600.000	15200.000					24800.000
74422	MOBILE CRANE	11	450.000	50.000		50.000			550.000
74422	BELT CONVEYOR	37	4305.000	246.000					4551.000
74422	BELT CONVEYOR	4	73767.456			73767.000			147.534.456
74422	BELT CONVEYOR	35	4059.000	246.000					4305.000
74422	STEEL PLATE CONVEYOR	19	2601.000	153.000					2754.000
74422	CRASS RER CONVEYOR	105	16055.000						16055.000
74422	STACKER	10	1297.193			1231.5			2462.693
74422	POWER TRANSDUCTION	17	138.000	96.000					234.000

TOTALS

1981	686,438,414
1982	117,255,790
1983	
1984	
1985	
1986	
1987	457,517.1
1988	
1989	
1990	

GRAND TOTAL = 962,451.3

UNICC/SPO TURKISH COAL WORKS (T.K.I.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : T.K.I. TOTAL
 UNIT COST IN 1990 USA DOLLARS

SITC CODE	BASIC MACHINE NAME	QT
72341	CC66024992 BULDOZER	151
72342	CC52513722 WHEEL TRADER	30
72342	2C23213331 BACHEE EXCAVATOR	12
72342	5C65829332 ELECTRIC EXCAVATOR	60
72343	C167529332 BLAST HOLE DRILL MACHINE	70
72343	2C60015331 DRILLING MACHINE	14
72831	C165015372 VIBRATORY GRIZZLY	20
72832	C364615332 IMPACT CRUSHER	17
74220	1133314332 CENTRIFUGAL PUMP	53
74411	1C55009331 AN/FO TRUCK	14
74411	2C17009372 BOTTOM DUMP TRUCK	269
74411	2C67009372 DUMP TRUCK	209
74425	1172015372 STEEL PLATE CONVEYOR	17

TOTALS
 1991 118,530
 1992 25,333
 1993 37,399
 1994
 1995 15,586
 1996 52,375
 1997 9,455
 1998 35,782
 1999 4,980
 2000 17,550

GRAND TOTAL= 366,987

COST BASIS 1991-2000 YEARS

COMMODITY CODE : 2100 1

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1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.CO
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
11800	2800	12800		2800						30700
4230	470	3760		5640						14100
					860	120	480			1460
					46500	9000	34500			90000
17100	2700	11700								31500
4000	500	2900		500						7000
		6456		1076	3228					10760
					1035	230	690			1955
				14	140	105	112			371
	360							480		840
58650	10400	8400		5250					17550	100250
22750	8100	40600						4500		75950
		1683		306	612					2601

UNIDO/SPC TURKISH COAL WORKS (T.C.K.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.L.L. ISIMLAR/SOMA
 PLANT CAPACITY : 465 TPH
 LOCATION : ISIMLAR/SOMAZIYMER
 ANTICIPATED DATE OF COMMISSIONING : 1987
 UNIT WEIGHTS IN TONS

SITE CODE	BASIC MACHINE NAME	QT
*****	*****	*****
35221	WASTE BURNER	5
T O T A L S		
1981	100.0	
1982		
1983		
1984		
1985		
1986		
1987		
1988		
1989		
1990		
GRAND TOTAL=	100.0	

COMMODITY CODE: 2100 1

4 FIGHT BASIS 1981-1990 YEARS

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1981	1982	1983	1987	1988	1989	1990	TOT. WF
100.0							100.0

UNIC/SFC TURKISH COAL WORKS (T.S.K.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S-L-L-1-1310LAR/STMA
 PLANT CAPACITY : 555 TPH
 LOCATION : ISIKLAR/SOMAZIYIR
 ANTICIPATED DATE OF COMMISSIONING : 1997
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QT	1981	1982	1983	1987	1988	1989	1990	TOTAL
72341	MOTOR GRADER	22	656.0							656.0
72342	ELECTRIC EXCAVATOR	6	2470.0							2,470.0
72343	DRILLING MACHINE	8	310.0							310.0
72349	DRILLING MACHINE	1	60.0							60.0
72352	TROLLEY LOCOMOTIVE	3	300.0							300.0
72353	MID AND FRIC-PROP	2000	50.0							50.0
72351	VIBRATORY GRIZZY	2	200.0							200.0
72352	TAPACT CRUSHER	2	100.0							100.0
7422C	CENTRIFUGAL PUMP	10	375.0							375.0
74312	AIR COMPRESSOR	2	20.0							20.0
74341	AUXILIARY FAN	10	450.0							450.0
74342	MINE FAN	2	70.0							70.0
74411	TRUCK TRAILER	32	3045.0							3,045.0
74421	MATERIAL WINCH	2	100.0							100.0
74422	MOBILE CRANE	1	40.0							40.0
74426	CRASS BAR CONVEYOR	13	740.0							740.0
7711.	POWER TRANSFORMATOR	3	150.0							150.0

TOTALS
 1981 9,036.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL= 9,036.0

WEIGHT BASIS 1981-1990 YEARS

COMMODITY CODE : 2100 1

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UNIDC/SFC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.L.I. DENIS
 PLANT CAPACITY : 370.4 TPH
 LOCATION : GENÇ/İZMİR
 ANTICIPATED DATE OF COMMISSIONING : 1997
 UNIT WEIGHTS IN TONS

UNIT WEIGHTS IN TONS	1981	1982	1983	1987	1988	1989	1990	TOT. WE
1981	100.0							100.0
1982		100.0						
1983			100.0					
1987				100.0				
1988					100.0			
1989						100.0		
1990							100.0	

SITC CODE ***** BASIC MACHINE NAME *****
 ***** WASTE BIPMER *****

TOTALS 100.0
 1981
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL= 100.0

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UNICC/SPC TURKISH COAL WORKS (T.K.W)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.L.I. DENIS
 PLANT CAPACITY : 370.4 TPH
 LOCATION : DEJIS/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1997
 UNIT WEIGHTS IN TONS

SITC	CODE	BASIC MACHINE NAME	QT
*****	*****	*****	****
72341		MOTOR GRADER	22
72342		ELECTRIC EXCAVATOR	6
72343		BLAST HOLE DRILL MACHINE	5
72343		DRILLING MACHINE	1
72831		VIBRATORY GRIZZLY	2
72832		IMPACT CRUSHER	2
7422C		CENTRIFUGAL PUMP	5
74411		TRUCK TRAILER	32
74422		MOBILE CRANE	1
74426		STEEL PLATE CONVEYOR	5

T O T A L S

1981 7,371.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL= 7,371.0

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WEIGHT BASIS 1981-1990 YEARS

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COMMODITY CODE : 2100 1

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1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.WE *****
656.0					656.0
2470.0					2470.0
150.0					150.0
60.0					60.0
200.0					200.0
100.0					100.0
150.0					150.0
3045.0					3045.0
40.0					40.0
500.0					500.0

UNIDO/SPC TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.L.I. SEKKOY
 PLANT CAPACITY : 777.8 TPH
 LOCATION : SEKKOY/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1986
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QT
*****	*****	*****
65211	WASTE BIKFER	4
T O T A L S		
	1981	80.0
	1982	
	1983	
	1984	
	1985	
	1986	
	1987	
	1988	
	1989	
	1990	
	GRAND TOTAL =	80.0

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COMMODITY CODE : 2100 1

WEIGHT BASIS 1981 1990 YEARS

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*****	1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.WF *****
	80.0					80.0

UNICE/SFC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.O.I. SEKKOY
 PLANT CAPACITY : 777.8 TPH
 LOCATION : SEKKOY/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1996
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QT
*****	*****	****
72341	AJTOR GRADER	20
72342	ELECTRIC EXCAVATOR	10
72343	BLAST HOLE DRILL MACHINE	5
72343	DRILLING MACHINE	1
72931	VIBRATORY GRIZZLY	2
72932	IMPACT CRUSHER	2
74220	CENTRIFUGAL PUMP	15
74411	TRUCK TRAILER	30
74420	MOBILE CRANE	1
74426	STEEL PLATE CONVEYOR	6

T O T A L S

1984 10,928.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL= 10,928.0

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WEIGHT BASIS 1981-1990 YEARS

PAGE: 1

COMMODITY CODE : 2130 1

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1981	1982	1983	1987	1988	1989	1990	TOT. WE
*****	*****	*****	*****	*****	*****	*****	*****
							608.0
608.0							
4870.0							4.870.0
180.0							180.0
60.0							60.0
200.0							200.0
100.0							100.0
450.0							450.0
3820.0							3.820.0
40.0							40.0
600.0							600.0

UNIC/SPO TURKISH COAL WORKS (T.Y.I.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.I. BAYYALA
 PLANT CAPACITY : 342.5 TPH
 LOCATION : BAYYALA/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1995
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QT
*****	*****	****

59211	WASTE BINNER	5
-------	--------------	---

TOTALS

1981	100.0
1982	
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	

GRAND TOTAL= 100.0

COMMODITY CODE : 2100 1

WEIGHT BASIS 1981-1990 YEARS

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*****	1981	1982	1983 1987	1988	1989 1990	TOT.WF
*****	*****	*****	*****	*****	*****	*****
	100.0					100.0

UNICE/SPC TURKISH COAL WORKS (T.Y.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S. I. BAGYALA
 PLANT CAPACITY : 342.5 TPA
 LOCATION : BAGYALA/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1995
 UNIT WEIGHTS IN TONS

SITE CODE	BASIC MACHINE NAME	QT
*****	*****	****
72341	MOTOR GRADER	18
72342	ELECTRIC EXCAVATOR	9
72343	BLAST HOLE DRILL MACHINE	8
72343	DRILLING MACHINE	2
72E31	VIBRATORY GRIZZLY	4
72E32	IMPACT CRUSHER	2
74220	CENTRIFUGAL PUMP	6
74411	TRUCK TRAILER	49
74425	STEEL PLATE CONVEYOR	9

T O T A L S
 1981 10,997.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL= 10,997.0

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WEIGHT BASIS 1981-1990 YEARS

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COMMODITY CODE : 2100 1

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1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.WF *****
					592.0
592.0					
3720.0					3.720.0
240.0					240.0
120.0					120.0
400.0					400.0
100.0					100.0
180.0					180.0
4745.0					4.745.0
900.0					900.0

JIIC/SFC TURKISH COAL WORKS (T.K.W)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.L.I. YATAŞAN
 PLANT CAPACITY : 640.1 TPH
 LOCATION : YATAŞAN/İZMİR
 ANTICIPATED DATE OF COMMISSIONING : 1995
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QT
72342	MOTOR GRADER	16
72342	ELECTRIC EXCAVATOR	8
72343	BLAST HOLE DRILL MACHINE	8
72343	DRILLING MACHINE	2
72931	VIBRATORY GRIZZLY	2
72932	IMPACT CRUSHER	1
74220	CENTRIFUGAL PUMP	2
74411	TRUCK TRAILER	55
74422	MOBILE CRANE	1
74426	STEEL PLATE CONVEYOR	16

TOTALS

1981 11,212.0
 1982
 1993
 1984
 1985
 1996
 1997
 1983
 1983
 1993

GRAND TOTAL = 11,212.0

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WEIGHT BASIS 1981-1990 YEARS

PAGE: 1

COMMODITY CODE :2100 1

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1981	1982	1983	1987	1988	1989	1990	TOT.WF
*****	*****	*****	*****	*****	*****	*****	*****
512.0							512.0
3120.0							3.120.0
240.0							240.0
120.0							120.0
200.0							200.0
50.0							50.0
60.0							60.0
5270.0							5.270.0
40.0							40.0
1600.0							1.600.0

UNICO/SEC TURKISH COAL WORKS (T.P.E)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : J.L.L. KELES
 PLANT CAPACITY : 333.3 TPH
 LOCATION : KELES/BURSA
 ANTICIPATED DATE OF COMMISSIONING : 1995
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QT
*****	*****	*****

69211	WASTE BINNER	6
-------	--------------	---

T O T A L S

1981	120.0
1982	
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	

GRAND TOTAL= 120.0

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COMMODITY CODE : 2100 1

WEIGHT BASIS 1981-1990 YEARS

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*****	1981	1982	1983-1987	1988	1989 1990	TOT.WF
*****	*****	*****	*****	*****	*****	*****
	120.0					120.0

UNIC/SFC TURKISH COAL WORKS (T.P.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.I. KELES
 PLANT CAPACITY : 333.3 TPH
 LOCATION : KELES/BURSA
 ANTICIPATED DATE OF COMMISSIONING : 1995
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QT
72241	MOTOR GRADER	16
72242	ELECTRIC EXCAVATOR	11
72343	BLAST HOLE DRILL MACHINE	4
72343	DRILLING MACHINE	1
72831	VIBRATORY GRIZZLY	2
72832	IMPACT CRUSHER	2
74220	CENTRIFUGAL PUMP	4
74411	TRUCK TRAILER	70
74422	MOBILE CRANE	1
74426	STEEL PLATE CONVEYOR	7

TOTALS
 1981 13,617.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL = 13,617.0

COMMODITY CODE : 2100 1

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1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT. WF *****
512.0					512.0
4920.0					4.920.0
120.0					120.0
60.0					60.0
200.0					200.0
100.0					100.0
120.0					120.0
6845.0					6.845.0
40.0					40.0
700.0					700.0

UNIDOT/SPT TURKISH TAIL WORKS (T.K.L.)
 CAPITAL COST DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : J.L.L. ORHANELI
 PLANT CAPACITY : 300.2 TON
 LOCATION : ORHANELI/BURSA
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT WEIGHTS IN TONS

SITE CODE	BASIC MACHINE NAME	QT
72341	MOTOR GRADER	10
72342	ELECTRIC EXCAVATOR	9
72343	DRILLING MACHINE	8
72343	DRILLING MACHINE	1
72352	TROLLEY LOCOMOTIVE	5
72353	WHD AND FRIC. PROP	5675
72331	VIBRATORY GRIZZLY	2
72332	IMPACT CRUSHER	2
74220	CENTRIFUGAL PUMP	31
74312	AIR COMPRESSOR	4
74341	AUXILIARY FAN	40
74342	HEAT FAN	2
74411	TRUCK TRAILER	20
74431	MATERIAL WINCH	22
74422	MOBILE CRANE	1
74426	GRASS MAT CONVEYOR	113
77111	POWER TRANSFORMATOR	6

TOTALS

1981 14,955.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL= 14,955.0

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WEIGHT BASIS 1981-1990 YEARS

PAGE: 1

COMMODITY CODE :2170 1

Area 19

1981 *****	1982 *****	1983 1987 *****	1988 *****	1989 1990 *****	TOT.WE *****
304.0					304.0
3140.0					3.140.0
310.0					310.0
60.0					60.0
600.0					600.0
141.0					141.0
200.0					200.0
100.0					100.0
1065.0					1.065.0
40.0					40.0
180.0					180.0
20.0					20.0
2845.0					2.845.0
1100.0					1.100.0
40.0					40.0
4510.0					4.510.0
300.0					300.0

UNICOM/SFC TURKISH COAL WORKS ET.K.11
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.I. CAN
 PLANT CAPACITY : 777.8 TPD
 LOCATION : SAH/CA HAKKALI
 ANTICIPATED DATE OF COMMISSIONING : 1997
 UNIT WEIGHTS IN TONS

SITE CODE	BASIC MACHINE NAME	QT
72341	MOTOR GRADER	44
72342	ELECTRIC EXCAVATOR	24
72343	BLAST HOLE DRILL MACHINE	16
72343	DRILLING MACHINE	2
72831	VIBRATORY GRITZLY	2
72832	IMPACT CRUSHER	2
74220	CENTRIFUGAL PUMP	6
74411	TRUCK TRAILER	109
74422	MOBILE CRANE	1
74425	STEEL PLATE CONVEYOR	8

T O T A L S

1981 23,820.1
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 1991

GRAND TOTAL = 23,820.0

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WEIGHT BASIS 1981 1990 YEARS

PAGE: 1

COMMODITY CODE :2120 1

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1981	1982	1983-1987	1988	1989 1990	TOT.WF
*****	*****	*****	*****	*****	*****
1440.0					1,440.0
9940.0					9,940.0
480.0					480.0
120.0					120.0
200.0					200.0
100.0					100.0
180.0					180.0
10520.0					10,520.0
40.0					40.0
800.0					800.0

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 COMMODITY CODE : 2100 I
 WEIGHT BASIS 1981 1990 YEARS
 PAGE: 1
 Jan 21

UNICORP TURKISH COAL MINE (T.C.M.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : SIVAS-KANGAL
 PLANT CAPACITY : 777.8 TDM
 LOCATION : KANGAL/SIVAS
 ANTICIPATED DATE OF COMPLETION : 1985
 UNIT RECEIPTS IN TONS

SITE CODE	BASIC MACHINE NAME	QT	1981	1982	1983	1987	1988	1989	1990	TOTAL
*****	*****	4	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0

***** WASTE RIPPER *****

TOTALS 80.0
 1981
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL= 80.0

-3/-
 COMMODITY CODE : 2100 1
 4FIGTH BASIS 1981-1990 YEARS PAGE: 1

UNIC/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : SIVAS KANSAJ
 PLANT CAPACITY : 777.3 TPI
 LOCATION : KANSAJ/SIVAS
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QT	1981	1982	1993-1997	1986	1980 1990	TOTAL
72341	MOTOR GRADER	10	600.0					600.0
72342	ELECTRIC EXCAVATOR	14	6600.0					6.600.0
72343	BLAST HOLE DRILL MACHINE	13	300.0					300.0
72343	DRILLING MACHINE	2	120.0					120.0
72831	VIBRATORY GRITZLY	2	200.0					200.0
72832	IMPACT CRUSHER	2	100.0					100.0
74220	CENTRIFUGAL PUMP	4	120.0					120.0
74411	TRUCK TRAILER	10	6695.0					6.695.0
74422	MOBILE CRANE	1	40.0					40.0
74926	STEEL PLATE CONVEYOR	13	1300.0					1.300.0

TOTALS
 1981 16,295.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL 16,295.0

1.250.0
 800.0
 410.0
 1.560.0
 210.0
 70.0
 4.700.0
 560.0

1250.0
 800.0
 410.0
 1560.0
 210.0
 70.0
 4700.0
 560.0

1992 *****

1993-1997 *****

1998 *****

1999 *****

2000 *****

COMMODITY CODE = 2130 1

*EIGHT BASIS 1981-1990 YR435

DIRECTOR GENERAL COAL WORKS (T.K. 11)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY ACQUISITIONS FOR THE NEW PLANT
 PLANT NAME : A.B.L. ELBISTAN A
 PLANT CAPACITY : 2801.1 TPA
 LOCATION : ELBISTAN/ARAS
 ANTICIPATED DATE OF COMMISSIONING : 1994
 UNIT WEIGHTS IN TONS

SITE CODE *****
 DATE MACHINE NAME *****

16	72261	BULLDOZER
19	72342	BUCKET WHEEL EXCAVATOR
1	72343	DRILLING MACHINE
2	74220	CENTRIFUGAL PUMP
17	74411	TRUCK TRAILER
1	74422	MOBILE CRANE
2	74426	BELT CONVEYOR
5	74428	MECANISM

TOTAL = 8510.0
 1987
 1988
 1989
 1990
 1991
 1992
 1993
 1994
 1995
 1996
 1997
 1998
 1999
 2000

8.510.0

FLIGHT BASIS 1987-1990 YEARS

COMMODITY CODE : 2100 1

DNIC/SFC TURKISH COAL WORKS (T.K.W.P)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : A.E.L. ELBISTAN 9
 PLANT CAPACITY : 369 TON
 LOCATION : ELBISTAN/44RAS
 ANTICIPATED DATE OF COMPLETIONING : 1990
 UNIT PRICE IN 1985

SYTC CODE	BASIC MACHINE NAME	QT	1981	1982	1983	1987	1989	1990	TOT. ME
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
72342	BULLDOZER	14				560.0			560.0
72342	SUBJECT WHEEL EXCAVATOR	18				4200.0			4,200.0
72343	DRILLING MACHINE	1				60.0			60.0
74222	CENTRIFUGAL PUMP	2				60.0			60.0
74411	TRUCK TRAILER	17				1540.0			1,540.0
74422	MOBILE CRANE	1				40.0			40.0
74422	BELT TRANSPORTER	2				800.0			800.0
74422	REGULATOR	6				1250.0			1,250.0

TOTAL

1981
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL = 8,510.0

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COMMODITY CODE : 2130 1
FIFTH YEAR 1981 1982 1983-1987 1988 1989 1990
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UNITED STATES OVERSEAS CORP. (TOKYO)
CAPITAL GOODS DEVELOPMENT PROJECT
FABRICATED MEASUREMENTS FOR EXPANSION
PLANT NAME : 241.1. 4 TH UNIT
PLANT CAPACITY : 231 TPA
LOCATION : JERIBU/KUTAYAMA
ANTICIPATED DATE OF COMMISSIONING :
UNIT BEING IN TONS

SITE CODE BASIC MACHINE NAME DT
57211 WASTE SPIKER 4
1981 1982 1983-1987 1988 1989 1990 TOT. ME
RD.0

TOTALS

1981	RD.0
1982	RD.0
1983	RD.0
1984	RD.0
1985	RD.0
1986	RD.0
1987	RD.0
1988	RD.0
1989	RD.0
1990	RD.0
GRAND TOTAL	RD.0

COMMODITY CODE :2100 1 WEIGHT RATE: 1981 1990 YFAC: 1987-1987 1988 1989 1990 101.WF

UNIT/SPC TURNON COAL WRECKS (T.M.F.)
CAPITAL GOODS DEVELOPMENT PROJECT
NECESSARY REQUIREMENTS FOR EXPANSION
PLANT NAME : S.S.I. SMEDLER
PLANT CAPACITY : 135 TPD
LOCATION : OMEGUR/MOTIYAMA
ANTICIPATED DATE OF COMPLETIONING :
UNIT WEIGHTS IN TONS

SITE CODE	BASIC MACHINE NAME	QT	1981	1982	1987-1987	1988	1989	1990	101.WF
7331	TROLLEY LOCATIVE	3	000.0	000.0	000.0	000.0	000.0	000.0	000.0
7333	HOLDING ERIC. PROP	3440	86.0	86.0	86.0	86.0	86.0	86.0	86.0
7422	CENTRIFUGAL PUMP	14	490.0	490.0	490.0	490.0	490.0	490.0	490.0
7434	AUXILIARY FAN	78	126.0	126.0	126.0	126.0	126.0	126.0	126.0
74342	AIR FAN	1	10.0	10.0	10.0	10.0	10.0	10.0	10.0
7442	MATERIAL WAGON	14	700.0	700.0	700.0	700.0	700.0	700.0	700.0

TOTAL
1981 1.712.0
1982 1.712.0
1987 1.712.0
1988 1.712.0
1989 1.712.0
1990 1.712.0
101.WF 1.712.0
GRAND TOTAL = 1,712.0

11100/SPO TURKISH COAL WORKS (T.M.V.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR EXPANSION
 PLANT NAME : ISALLI GAYIRHAN
 PLANT CAPACITY : 55.5 TPI
 LOCATION : DEYPAZARI/ANKARA
 ANTICIPATED DATE OF COMPLETION :
 UNIT WEIGHTS IN TONS

UNIT	CODE	UNIT MACHINE NAME	WT
22347		DRILLING MACHINE	5
22350		TRAILER LOCOMOTIVE	10
22353		MEDIUM SPEED PUMP	1000
24220		CENTRIFUGAL PUMP	4
24313		AIR COMPRESSOR	1
24401		MATERIAL WAGON	1
27111		POWER TRANSFORMER	3

TOTALS

1981

1982 1,945.0

1983

1984

1985

1986

1987

1988

1989

1990

GRAND TOTAL = 1,945.0

COMMODITY CODE = 2100 1

WEIGHT BASIS 1981 1990 YEARS

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1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.WE *****
	300.0				300.0
	1000.0				1,000.0
	45.0				45.0
	140.0				140.0
	10.0				10.0
	50.0				50.0
	400.0				400.0

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 COMMODITY CODE : 2170 1

PAGE: 1

WEIGHT BASIC 1981-1990 YEARS

UNICORP TAJSAH COAL WORKS (T.K.1)
 CAPITAL COSTS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR MODERNIZATION
 PLANT NAME : J.L.I. TONGCHIEP
 PLANT CAPACITY : 1000 TON
 LOCATION : TAJSAH ALIANGTAWA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT WEIGHTS IN TONS

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ITEM CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	YTD WF
72341	ACTOR GRADER	33	600.0						600.0
72342	ELECTRIC EXCAVATOR	7	1100.0						3.100.0
72343	ROAD WEAVER	8	260.0						260.0
72352	TROLLEY LOCOMOTIVE	6	400.0						400.0
72353	MILDARD ERIC. PROP	1870	47.0						43.0
74220	CENTRIFUGAL PUMP	21	705.0						705.0
74231	AUXILIARY FAN	32	144.0						144.0
74411	DUMP TRUCK	24	2400.0						2.400.0
74421	MATERIAL WINCH	23	1150.0						1.150.0

TOTALS
 1981 8,806.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL = 8,806.0

UNIT/SEC THROUGH COAL WORKS (T.C.W.)
 CAPITAL COST DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR MODERNIZATION
 PLANT NAME : S.S.L.-1, SEVITAMER
 PLANT CAPACITY : 1000 T/M
 LOCATION : SEVITAMER/COCHIN
 ANTICIPATED DATE OF COMPLETION :
 UNIT WEIGHTS IN TONS

WEIGHT BASIS 1981-1990 YEARS
 COMMODITY CODE : 2100 1
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SITE CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	TOTAL
72341	MOTOR GRADER	9		236.0					236.0
72342	ELECTRIC EXCAVATOR	3		1400.0					1400.0
72343	DRILLING MACHINE	4		180.0					180.0
74411	DUMP TRUCK	24		2400.0					2400.0

TOTALS
 1981 4476.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTALS 4476.0

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WEIGHT BASIS 1981-1980 YEARS

COMMODITY CODE : 2100 1

UNDEVELOPED TURKISH COAL BASIN (T.C.K.B.)
 CAPITAL CODE DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR MODERNIZATION
 PLANT NAME : S.L.S. COAL IDANI
 PLANT CAPACITY : 350 T/M
 LOCATION : S343/1241R
 ANTICIPATED DATE OF COMPLETION :
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QT.	1981	1982	1983	1987	1988	1989	1990	TOT. WT.
72341	BUILDING	4		100.0						100.0
72342	ELECTRICAL EXCAVATOR	6		1400.0						1,400.0
72343	BLAST HOLE DRILL MACHINE	4		120.0						120.0
72352	TRAILER LOCOMOTIVE	2		200.0						200.0
74312	AIR COMPRESSOR	1		10.0						10.0
75342	LIVE FAN	1		10.0						10.0
75411	DUMP TRUCK	15		100.0						1,500.0

TOTALS
 1581 3,600.0
 1582 3,600.0
 1591
 1584
 1585
 1586
 1597
 1598
 1599
 1590
 1591
 1592

GRAIN TOTAL = 3,600.0

UNION/SPR CARBON CHAL WRRPT (7.0.11)
 CAPITAL COSTS DEVELOPMENT PROJECT
 NECESSARY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING: C.I.L. CEMENT 1986
 UNIT BEING IN THIS

SITC CODE	BASIC MACHINE NAME	QTY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.MF
72241	BULDOZER	14		560									560
72342	ELECTRIC EXCAVATOR	9		50				3470					3470
72343	AIR-DRIVE DRILL MACHINE	5		140									140
72343	DRILLING MACHINE	1		60									60
72511	PISTONARY GRITZLY	2					200						200
72522	IMPACT CRUISER	2							130				130
73222	CENTRIFUGAL PUMP	15							420				420
73411	JUMP TRUCK	31		1600									1600
74424	STEEL PLATE CONVEYOR	2					200						200

TOTAL
 1991 1400
 1992 9750
 1993
 1994 400
 1995 200
 1996 4170
 1997
 1998
 1999
 2000

GRAND TOTAL= 9,220

UNLDC/SPC TOTAL COST VALUE (Y.P.01)
 CAPITAL COSTS DEVELOPMENT PROJECT
 MACHINERY REPLACEMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : P.L.I. COMA 1317
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 2100 1
 WEIGH RATE 1991 2000 YEARS

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4/29/81

SITC CODE	BASIC MACHINE NAME	QTY	1991	1992	1993	1974	1995	1996	1997	1998	1999	2000	INT.MF
72341	LADDER	15			400								400
72342	ELECTRIC EXCAVATOR	6			50			2420					2420
72343	WATER WOLF DRILL MACHINE	5			150								150
72348	DRILLING MACHINE	1			60								60
72521	VIBRATORY GRIZZLY	2					200						200
72522	IMPACT CRUMPER	2							100				100
74000	CENTRIFUGAL PUMP	5							150				150
74411	DUMP TRUCK	31			625								1025
74420	STEEL PLATE CONVEYOR	1						100					100

TOTALS
 1974 425
 1982 3,200
 1992 3,200
 1993 300
 1996 2,070
 1997 2,070
 1998 2,070
 2000 2,070
 GRAND TOTAL = 6,855

JULY 1957: FURNISH COAL WAGONS 17,000
 CAPITAL COSTS JEOPARDISE PROJECT
 NECESSARY REPAIRS FOR REPLACEMENT
 WARE SE CLASH AND WEAR TO STARTING 3 A.M. ON WEDNESDAY - 1955
 JULY 1957: 10 TONS

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WEIGHT BASIS 1900-1900 YEARS

COMMODITY CODE : 2800 I

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TYPE CODE	BASIC MACHINE NAME	QTY	1901	1902	1903	1904	1905	1906	1907	1908	1909	2000	TOTAL
72341	BURDOPPER	7	280										700
72342	ELECTRIC EXCAVATOR	8	100				2660						2960
72343	RAST HP F DRILL MACHINE	5	150										150
72343	MILLING MACHINE	1	60										60
72341	FLAMMABLE GRIZZLY	2			700								700
72322	IMPACT CRUSHER	2					180						180
76222	CENTRIFUGAL PUMP	6					120						120
76411	JUMP TRUCK	20			1800					1975			2075
76422	STEEL PLATE COMPACTOR	2			200								200

TOTALS
 1994 2,390
 1992 600
 1993 600
 1994 600
 1995 2,060
 1997 1,975
 1998 1,025
 2000 6,675
 GRAND TOTAL - 6,675

UNCLASSIFIED THROUGH OTHER AGENCIES (U.S.G.)
 COMMUNITY CODE : 2100 1
 #FIG#_RAT# 1971-2000 YEARS
 PAGE: 1
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NAME	QTY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.#
ALUMINUM	12	480										480
BERBERIC PROCATOR	11	100					4820					4920
BLAST WIND DRILL MACHINE	4	120										120
BRILLIANT WARE-HOUSE	1	60										60
WHEATSTRAW TRIPZIV	2			200								200
IMPACT CRUISER	2						100					100
COPPER/BERBERIC BUMP	4						120					120
BUMP TRUCK	43	5700								25	1100	6825
WHEEL TRACTOR COMBINE	2											200

P 2 11 2
 1991 1992 1993 1994 1995
 1996 1997 1998 1999 2000
 2001 2002 2003 2004 2005
 GRAND TOTAL = 112,375

UNDEPSPC TURKISH COAL WORKS (T.K.W.)
CAPITAL GOODS DEVELOPMENT PROJECT
MACHINERY REQUIREMENTS FOR REPLACEMENT
NAME OF PLANT AND YEAR OF STARTING : SIVAS-KARIGAL - 1985
UNIT WEIGHTS IN TONS

COMMODITY CODE : 2100 1
HEIGHT BASIS 1991 2000 YEARS

SITC CODE BASIC MACHINE NAME

SITC CODE	BASIC MACHINE NAME	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOTAL
72341	SUBLOZER	14										560
72342	ELECTRIC EXCAVATOR	13					6050					6090
72343	WAST MTRIE DRILL MACHINE	13										390
72348	DRILLING MACHINE	2										120
72831	VIBRATORY GRIZZLY	2			300							700
72832	IMPACT CRUSHER	2					100					100
7422C	CENTRIFUGAL PUMP	4					120					120
74411	DUMP TRUCK	59								75	1400	6675
74426	STEEL PLATE CONVEYOR	1									100	100

TOTALS
1991 6.320
1992 300
1993 300
1994
1995 6.260
1996
1997
1998 75
1999 1.400
2000
GRAND TOTAL= 14.355

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOTAL
540	540	540	540	540	540	540	540	540	540	540	540
3120	3120	3120	3120	3120	3120	3120	3120	3120	3120	3120	3120
257	257	257	257	257	257	257	257	257	257	257	257
120	120	120	120	120	120	120	120	120	120	120	120
100	100	100	100	100	100	100	100	100	100	100	100
180	180	180	180	180	180	180	180	180	180	180	180
4725	4725	4725	4725	4725	4725	4725	4725	4725	4725	4725	4725
500	500	500	500	500	500	500	500	500	500	500	500

CAPITAL COSTS OF THE PROJECT
 MAINTENANCE COSTS FOR REPLACEMENT
 PARTS PLANT AND REPAIRS
 UNIT MONTHLY COSTS

 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 TOTAL

HEIGHT BASIS 1991-2000 YEARS
 PAGE: 1

UNIOCS/SPC TUCKER COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REPLACEMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : F.L.I DENNIS 1987
 UNIT HEIGHTS IN TONS

SITE CODE	BASIC MACHINE NAME	QTY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT. WE
72341	BULDOZER	15	600										60
72342	ELECTRIC EXCAVATOR	6	50							2470			2470
72343	BLAST MRF DRILL MACHINE	5	150										150
72349	DRILLING MACHINE	1	60										60
72831	VIBRATORY GRIZZLY	2				200							200
72832	IMPACT CRUSHER	2								100			100
74220	CENTRIFUGAL PUMP	5								150			150
74411	JUMP TRUCK	31	675	2400									3075
74426	STEEL PLATE CONVEYOR	1								100			100

TOTALS
 1991 525
 1992 3,260
 1993
 1994
 1995 300
 1996
 1997 2,670
 1998
 1999
 2000
 GRAND TOTAL= 6,855

WEIGHT BASIS 1991-2000 YEARS

COMMODITY CODE : 2100 1

UNICC/SFC TURKISH COAL WORKS (T.K.W.)
CAPITAL GOODS DEVELOPMENT PROJECT
MACHINERY REQUIREMENTS FOR REPLACEMENT
NAME OF PLANT AND YEAR OF STARTING : A.F.L. ELRISTAN B - 1980
UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QTY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT. WT.
72341	BULDOZER	14					560						560
72342	WHEEL LOADER	12				600							600
72348	DRILLING MACHINE	1				60							60
74220	CENTRIFUGAL PUMP	2											10
74411	DUMP TRUCK	15											1500

TOTALS

1991	
1992	
1993	
1994	2,730
1995	
1996	
1997	
1998	
1999	
2000	
GRAND TOTAL	2,730

PROJECT BUREAU CODE MARKS (L.M.P.)
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : C.I.L. CAN - 1917
 UNIT PRICE IN INRS

COMMODITY CODE : 2100 1

* EIGHT PAGES 1991-2000 YEARS

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DTD CODE *****
 MACHINERY NAME *****
 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 TOTL AM

ITEM NO	QUANTITY	UNIT	DESCRIPTION	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOTL AM
22241	34		SHOES			1360								1360
22237	23		ELECTRIC EXCAVATOR			700					9040			9340
22236	16		WASTE WATER PUMP MACHINE			480								480
22235	2		WATERING MACHINE			120								120
22234	2		WATERING GRIZZLY						700					700
22233	2		IMPACT CRUSHER											100
22232	6		DETAILED PUMP								180			180
22231	109		DOOR LOCK			9300								10500
22230	2		STEEL PLATE CONVEYOR										200	200

1991 1360
 1992 700
 1993 9040
 1994 11400
 1995 700
 1996 9040
 1997 180
 1998 100
 1999 9340
 2000 1360

 GRAND TOTAL = 22480

UNIC/590 TURKISH COAL MINE (T.K.01)
 CAPITAL COSTS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : E.I.T. YATAGAN 1985
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 2100 L
 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 TOT.WE

SITC CODE	BASIC MACHINE NAME	QT	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.WE
72241	BULLDOZER	12	480										480
72342	ELECTRIC EXCAVATOR	7	100					2420					2520
72343	BLAST HOLE DRILL MACHINE	3	320										320
72349	DRILLING MACHINE	2	120										170
72821	VIBRATORY GRIZZLY	2			200								200
72832	IMPACT CRUSHER	1						50					50
74222	CENTRIFUGAL PUMP	2						60					60
74411	DUMP TRUCK	54	3800								50	1400	5250
74426	STEEL PLATE CONVEYOR	2										200	200

TOTALS
 1991 4,320
 1992 400
 1993
 1994
 1995 2,530
 1996
 1997
 1998
 1999 50
 2000 1,400
 GRAND TOTAL = 9,200

UNIC/SPO TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 PRELIMINARY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S-L-1. ISPLAR SONA
 PLANT CAPACITY : 665.0 TPH
 LOCATION : ISIKLAR/SONA/ZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1987
 UNIT COST IN 1000 U.S.A. DOLLAR

COMMODITY CODE : 2100 1
 COST-BASIS 1981-1990 YEARS
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SITC CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	TOTAL
72341	MOTOR GRADER	22	4050.000						4.050.000
72342	ELECTRIC EXCAVATOR	6	6590.000						6.590.000
72343	DRILLING MACHINE	8	3110.000						3.110.000
72348	DRILLING MACHINE	1	500.000						500.000
72352	TROLLEY LOCOMOTIVE	3	300.000						300.000
72353	WID AND FRIC. PROP	2000	378.000						378.000
72621	VIBRATORY GRIZZLY	2	1076.000						1.076.000
72632	IMPACT CRUSHER	2	230.000						230.000
74220	CENTRIFUGAL PUMP	10	135.000						135.000
74312	AIR COMPRESSOR	2	780.000						780.000
74341	AUXILIARY FAN	10	20.000						20.000
74342	MINE FAN	2	320.000						320.000
74422	TRUCK TRAILER	32	11220.000						11.220.000
74421	MATERIAL WINCH	2	800.000						800.000
74422	MOBILE CRANE	1	50.000						50.000
74426	GRASS BAR CONVEYOR	13	1869.000						1.869.000
77111	POWER TRANSFORMATOR	3	36.000						36.000

TOTALS
 1981 31.464.000
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 1991
 1992
 GRAND TOTAL = 31.464.000

UNICC/SPC TURKISH COAL WORKS (T.K.W)
CAPITAL GOODS DEVELOPMENT PROJECT
FABRICATED REQUIREMENTS FOR THE NEW PLANT
PLANT NAME : E.L.I. DENIS
PLANT CAPACITY : 370.4 TPH
LOCATION : DENIS/IZMIR
ANTICIPATED DATE OF COMMISSIONING : 1997
UNIT COST IN 1981 U.S.A. DOLLARS

COMMODITY CODE : 2100

SITC CODE	BASIC MACHINE NAME	QT	1981
*****	*****	****	*****
59211	WASTE BUNKER	5	120.000
T O T A L S			
1991	120.000		
1992			
1993			
1994			
1995			
1996			
1997			
1998			
1999			
1990			
1991			
GRAND TOTAL =	120.000		

COST-BASIS

1981-1990 YEARS

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1982	1983-1987	1988	1989 1990	TOT.CO
*****	*****	*****	*****	*****
				120.000

UNEDC/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.L.I. DENIS
 PLANT CAPACITY : 370.4 TPD
 LOCATION : DENIS/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1997
 UNIT COST IN 1980 U.S.A. DOLLARS

COMMODITY CODE : 2100 1

COST-BASIS 1981-1990 YEARS

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SITC CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	TOT.CO
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
72341	MOTOR GRADER	22	4050.000						4.050.000
72342	ELECTRIC EXCAVATOR	6	6590.000						6.590.000
72343	BLAST HOLE DRILL MACHINE	5	2250.000						2.250.000
72343	DRILLING MACHINE	1	500.000						500.000
72831	VIBRATORY GRIZZLY	2	1076.000						1.076.000
72832	IMPACT CRUSHER	2	230.000						230.000
74220	CENTRIFUGAL PUMP	6	35.000						35.000
74411	TRUCK TRAILER	12	11220.000						11.220.000
74422	MOBILE CRANE	1	50.000						50.000
74426	STEEL PLATE CONVEYOR	5	645.000						645.000

TOTALS

1981 26,646.000
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL= 26,646.000

UNIDO/SPO TURKISH COAL WORKS (T.M.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.L.I. SEKSIY
 PLANT CAPACITY : 777.8 T/M
 LOCATION : SEKSIY/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1996
 UNIT COST IN 1000 U.S.A. DOLLARS

COMMODITY CODE : 2100 1

COST-BASIS 1981-1990 YEARS

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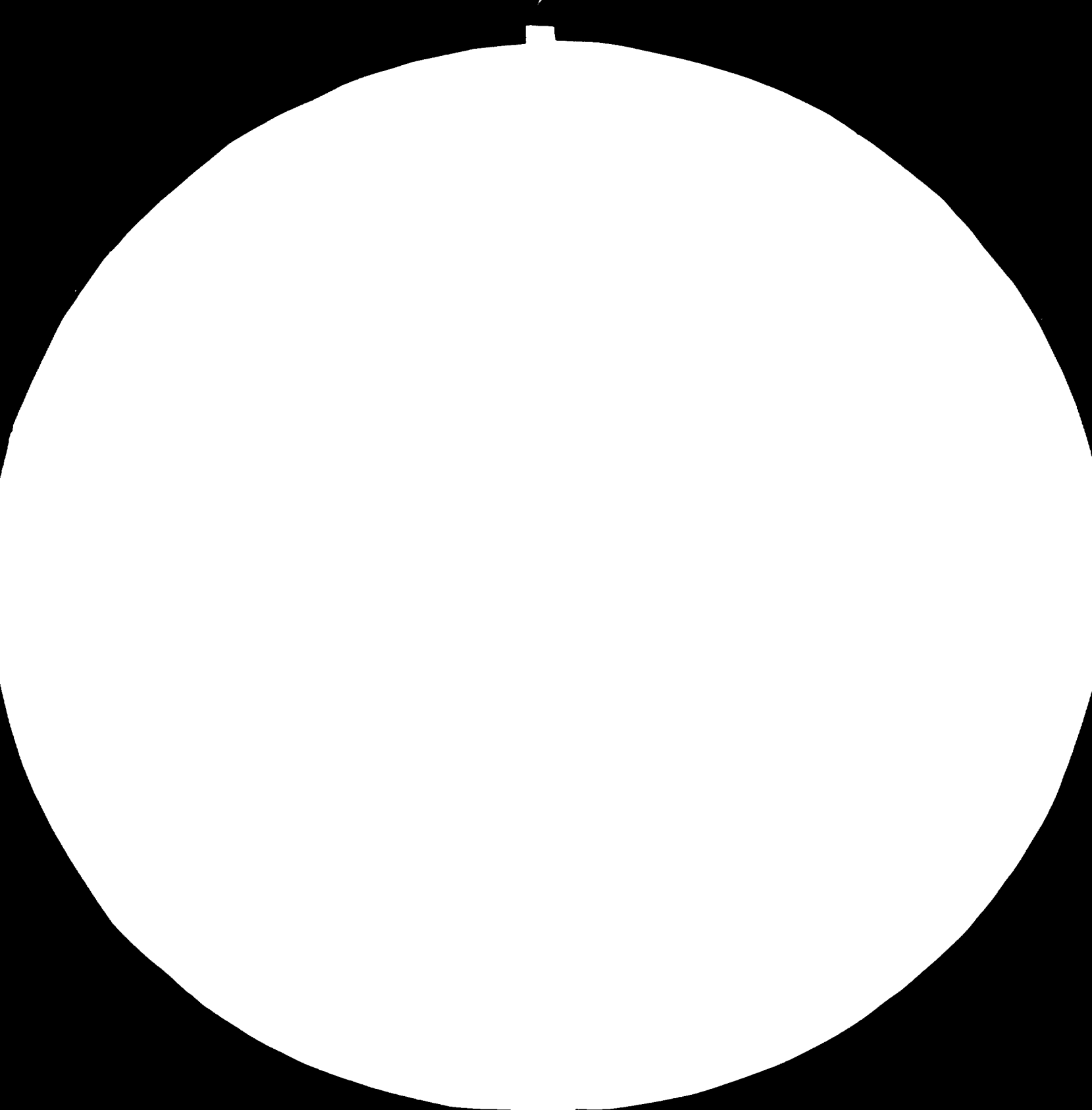
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SITE CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	TOT.CO
65211	WASTE BUNKER	4	96.000						96.000

TOTALS

1981	96.000
1982	
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	
GRAND TOTAL=	96.000







MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

UNICCO/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.-L.-I. SENEVY
 PLANT CAPACITY : 777.8 TPA
 LOCATION : SENKOY/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1996
 UNIT COST IN 1990 U.S.A. DOLLARS

COMMODITY CODE : 2130 1

SITC CODE	BASIC MACHINE NAME	QT	1981
*****	*****	****	*****
72341	ROTOR GRADER	20	3700.000
72342	ELECTRIC EXCAVATOR	10	45590.000
72343	BLAST HOLE DRILL MACHINE	6	2700.000
72348	DRILLING MACHINE	1	500.000
72831	VIBRATORY GRIZZLY	2	1076.000
72932	IMPACT CRUSHER	2	230.000
74330	CENTRIFUGAL PUMP	15	105.000
74411	TRUCK TRAILER	39	14960.000
74422	ROBUST CRANE	1	50.000
74426	STEEL PLATE CONVEYOR	6	798.000

T O T A L S

1981 59,709,000
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL = 69,709,000

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1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TCT.CO *****
				3.700.000
				45.590.000
				2.700.000
				500.000
				1.076.000
				230.000
				105.000
				16.960.000
				50.000
				798.000

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COST-BASIS 1981-1990 YEARS

COMMODITY CODE : 2100

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UNIC/SFC TURKISH COAL WORKS (T-K-W)
 CAPITAL GOODS DEVELOPMENT PROJECT
 ESTIMATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.E. BAGVALA
 PLANT CAPACITY : 362.5 T/M
 LOCATION : BAGVALA/TZMR
 ANTICIPATED DATE OF COMPLETION : 1985
 UNIT COST IN 1980 U.S.A. DOLLARS

SYC CODE	BASIC MACHINE NAME	QTY	1981	1982	1983-1987	1988	1989	1990	TOT.CO
49212	WASTE BIKER	5	120.000						120.000

TOTALS 120.000

1981
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL = 120.000

UNICC/SPC TURKISH COAL WORKS (T.K.I.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.C.I. BAGYALA
 PLANT CAPACITY : 342.5 TPH
 LOCATION : BAGYALA/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1995
 UNIT COST IN 1990 U.S.A. DOLLARS

COMMODITY CODE : 2100

SIIC CODE	BASIC MACHINE NAME	QT	1981
*****	*****	****	*****
72341	MOTOR GRADER	18	3400.000
72342	ELECTRIC EXCAVATOR	9	26560.000
72343	BLAST HOLE DRILL MACHINE	8	3600.000
72348	DRILLING MACHINE	2	1000.000
72811	VIBRATORY GRIZZLY	4	2152.000
72832	IMPACT CRUSHER	2	230.000
74220	CENTRIFUGAL PUMP	6	42.000
74411	TRUCK TRAILER	49	16570.000
74426	STEEL PLATE CONVEYOR	9	1227.000

T O T A L S

1991 54.781.000

1992

1993

1994

1995

1996

1997

1998

1999

2000

GRAND TOTAL= 54.781.000

COST-BASIS

1981-1990 YEARS

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1982	1983-1987	1988	1989	1990	TOT. CN
*****	*****	*****	*****	*****	*****
					3.400.000
					26.560.000
					3.600.000
					1.000.000
					2.152.000
					290.000
					62.000
					16.570.000
					1.227.000

UNIDO/SPC TURKISH COAL WORKS (T.K.1)
CAPITAL GOODS DEVELOPMENT PROJECT
EQUIPMENT REQUIREMENTS FOR THE NEW PLANT
PLANT NAME : E.L.I. YATAGAN
PLANT CAPACITY : 548.1 TPH
LOCATION : YATAGAN/IZMIR
ANTICIPATED DATE OF COMMISSIONING : 1985
UNIT COST IN 1000 U.S.A. DOLLARS

COMMODITY CODE : 2100

SITC CODE	BASIC MACHINE NAME	QT	1981
*****	*****	****	*****
72341	MOTOR GRADER	16	3000.000
72342	ELECTRIC EXCAVATOR	8	25060.000
72343	BLAST HOLE DRILL MACHINE	8	3600.000
72348	DRILLING MACHINE	2	1000.000
72831	VIBRATORY GRIZZLY	2	1076.000
72832	IMPACT CRUSHER	1	115.000
74220	CENTRIFUGAL PUMP	2	14.000
74411	TRUCK TRAILER	55	19780.000
74422	MOBILE CRANE	1	50.000
74424	STEEL PLATE CONVEYOR	16	2028.000

T O T A L S

1981 55,723,000

1982

1983

1984

1985

1986

1987

1988

1989

1990

GRAND TOTAL = 55,723,000

COST-BASIS

1981-1990 YEARS

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1982	1983-1987	1988	1989	1990	TOT.CO
*****	*****	*****	*****	*****	*****
					3.000.000
					25.060.000
					3.400.000
					1.000.000
					1.076.000
					115.000
					14.000
					19.780.000
					50.000
					2.028.000

UNIDO/SPO TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : U.L.I. KELES
 PLANT CAPACITY : 333.3 TPH
 LOCATION : KELES/MURSA
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT COST IN 1000 U.S.A. DOLLARS

COMMODITY CODE : 2100

SITC CODE	BASIC MACHINE NAME	QT	1981
*****	*****	****	*****
49211	WASTE BIKER	6	144.000
T O T A L S			
1981	144.000		
1982			
1983			
1984			
1985			
1986			
1987			
1988			
1989			
1990			
GRAND TOTAL=			144.000

COST-BASIS 1981-1990 YEARS

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1982	1983-1987	1988	1989 1990	TOT.CO
*****	*****	*****	*****	*****
				144.000

UNIOC/SPO TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : J.L.I. KELES
 PLANT CAPACITY : 333.3 TPH
 LOCATION : KELES/BURSA
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT COST IN 1980 U.S.A. DOLLARS

COMMODITY CODE : 2100 1

SITE CODE	BASIC MACHINE NAME	QTY	1981
72341	MOTOR GRADER	16	3000.000
72342	ELECTRIC EXCAVATOR	10	13060.000
72343	BLAST HOLE DRILL MACHINE	4	1800.000
72348	DRILLING MACHINE	1	900.000
72821	VIBRATORY GRIZZLY	2	1076.000
72832	IMPACT CRUSHER	2	230.000
74220	CENTRIFUGAL PUMP	4	28.000
74411	TRUCK TRAILER	76	25020.000
74422	MOBILE CRANE	1	50.000
74626	STEEL PLATE CONVEYOR	7	927.000

TOTAL U.S.
 1981 50,385,000
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL= 49,685,000

COST-BASIS 1981-1990 YEARS

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1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
				3.000.000
				13.060.000
				1.800.000
				500.000
				1.076.000
				230.000
				28.000
				25.020.000
				50.000
				921.000

UNIDOC/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : U.L.I. ORHANELI
 PLANT CAPACITY : 300.2 TPH
 LOCATION : ORHANELI/BURSA
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT COST IN 1000 U.S.A. DOLLARS

COMMODITY CODE : 2100 1

SITC CLDE	BASIC MACHINE NAME	QT	UNIT COST
*****	*****	****	*****
72341	MOTOR GRADER	10	1850.000
72342	ELECTRIC EXCAVATOR	9	25180.000
72343	DRILLING MACHINE	8	3110.000
72348	DRILLING MACHINE	1	500.000
72352	TROLLEY LOCOMOTIVE	6	600.000
72353	HID AND FRIC. PROP	5625	1063.125
72931	VIBRATORY GRIZZLY	2	1076.000
72E32	IMPACT CRUSHER	2	230.000
7422C	CENTRIFUGAL PUMP	31	568.000
74112	AIR COMPRESSOR	4	1560.000
74341	AUXILLARY FAN	40	80.000
74342	MINE FAN	2	320.000
74312	TRUCK TRAILER	30	10920.000
74421	MATERIAL WINCH	22	8800.000
74422	MOBILE CRANE	1	50.000
74426	GRASS BAR CONVEYOR	113	16869.000
77111	POWER TRANSFORMOTOR	6	72.000

T O T A L S

1981 72,848.125

1982

1983

1984

1985

1986

1987

1988

1989

1990

GRAND TOTAL= 72,848.125

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1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
				1.850.000
				25.188.000
				3.110.000
				500.000
				600.000
				1.063.125
				1.076.000
				230.000
				568.000
				1.560.000
				86.000
				320.000
				10.920.000
				8.800.000
				50.000
				16.869.000
				72.000

UNEDC/SPO TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : C.L.I. CAN
 PLANT CAPACITY : 710.2 TPH
 LOCATION : GAY/CANAKKALE
 ANTICIPATED DATE OF COMMISSIONING : 1987
 UNIT COST IN 1000 U.S.A. DOLLARS

COMMODITY CODE : 2100 1

COST-BASIS 1981-1990 YEARS

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SITC CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	TOT.CO
*****	*****	****	*****	*****	*****	*****	*****	*****	*****
67211	WASTE BUNKER	6	144.000						144.000
T O T A L S									
	1981		144.000						
	1982								
	1983								
	1984								
	1985								
	1986								
	1987								
	1988								
	1989								
	1990								
	GRAND TOTAL =		144.000						

UNICOFSPD TURKISH COAL WORKS (T.K.-II)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MAJOR REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.I. CAN
 PLANT CAPACITY : 710.2 TPA
 LOCATION : CAYCANAKALE
 ANTICIPATED DATE OF COMMISSIONING : 1987
 UNIT COST IN 1980 U.S.A. DOLLARS

COST-BASIS 1981-1990 YEARS

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COMMODITY CODE : 2100 1

SITC CODE	BASIC MACHINE NAME	QTY	1981	1982	1983-1987	1988	1989	1990	TOT.CO
72341	MOTOR GRADER	44	8300.000						8.300.000
72342	ELECTRIC EXCAVATOR	24	43560.000						43.560.000
72343	BLAST HOLE DRILL MACHINE	16	7200.000						7.200.000
72348	DRILLING MACHINE	2	1000.000						1.000.000
72631	VIBRATORY GRIZZLY	2	1076.000						1.076.000
72832	IMPACT CRUSHER	2	230.000						230.000
74220	CENTRIFUGAL PUMP	6	42.000						42.000
74411	TRUCK TRAILER	109	37900.000						37.900.000
74422	MOBILE CRANE	1	50.000						50.000
74425	STEEL PLATE CONVEYOR	8	1044.000						1.044.000

TOTALS
 1981 100,402,000
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL = 100,402,000

UNICC/SFC TURKISH COAL WORKS (T.K.W)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : KANGAL SIVAS
 PLANT CAPACITY : 777.8 TDM
 LOCATION : KANGAL/SIVAS
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT COST IN 1980 U.S.A. DOLLARS

COMMODITY CODE : 2100 1

SITC CODE	BASIC MACHINE NAME	QT	1981
*****	*****	*****	*****
57211	WASTE BUNKER	4	96.000
T O T A L S			
1981			96.000
1982			
1983			
1984			
1985			
1986			
1987			
1988			
1989			
1990			
GRAND TOTAL=			96.000

COST-BASIS 1981-1990 YEARS

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1982	1983-1987	1988	1989 1990	TOT.CO
*****	*****	*****	*****	*****
				96.000

UNIDO/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : KANGAL SIVAS
 PLANT CAPACITY : 777.8 TPA
 LOCATION : KANGAL/SIVAS
 ANTICIPATED DATE OF COMMISSIONING : 1989
 UNIT COST IN 1980 U.S.A. DOLLARS

SITC CODE	BASIC MACHINE NAME	QT
72341	MOTOR GRADER	19
72342	ELECTRIC EXCAVATOR	14
72343	BLAST HOLE DRILL MACHINE	13
72349	DRILLING MACHINE	2
72831	VIBRATORY GRIZZLY	2
72832	IMPACT CRUSHER	2
74220	CENTRIFUGAL PUMP	4
74411	TRUCK TRAILER	70
74422	MOBILE CRANE	1
74426	STEEL PLATE CONVEYOR	13

TOTALS

1981	71,963,000
1982	
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	

GRAND TOTAL = 71,861,000

COMMODITY CODE : 2100 1

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1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
3550.000					3.550.000
33710.000					33.710.000
5850.000					5.850.000
1000.000					1.000.000
1076.000					1.076.000
230.000					230.000
28.000					28.000
24740.000					24.740.000
50.000					50.000
1629.000					1.629.000

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SITC CODE	BASIC MACHINE NAME	QTY	COST-BASIS					1989 1990	TOT.CO
			1981	1982	1983-1987	1988	1989		
72341	BULLDOZER	14	2800.000					2,800.000	
72342	BUCKET WHEEL EXCAVATOR	18	73784.640					73,784.640	
72343	DRILLING MACHINE	1	500.000					500.000	
74220	CENTRIFUGAL PUMP	2	14.000					14.000	
74411	TRUCK TRAILER	17	5370.000					5,370.000	
74422	MOBILE CRANE	1	50.000					50.000	
74426	BELT CONVEYOR	2	73761.456					73,761.456	
74428	RECLAIMER	5	1231.5					1,231.5	

UNICEF/TSP TURKISH COAL WORKS (T.K.K.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : A-E-L- ELBISTAN A
 PLANT CAPACITY : 2801.1 TPH
 LOCATION : ELJISTANHARAS
 ANTICIPATED DATE OF COMPLETION : 1984
 UNIT COST IN 1980 U.S.A. DOLLARS

COMMODITY CODE : 2100 1

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TOTALS
 1981 157,517.59
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL = 157,517.59

98

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1981-1990 YEARS

COST-BASES

COMMODITY CODE : 2100 1

UNIC/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MECHANARY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : 02.L. ELBISTAN A
 PLANT CAPACITY : 4549 TON
 LOCATION : ELBISTAN/MARAS
 ANTICIPATED DATE OF COMMISSIONING : 1990
 UNIT COST IN 1990 U.S.D. DOLLARS

SITE CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	TOTAL
72311	BULLDOZER	14				2420.000			2.420.000
72312	BUCKET WHEEL EXCAVATOR	18				73784.640			73784.640
72313	DRILLING MACHINE	1				520.000			500.000
72320	CENTRIFUGAL PUMP	2				14.000			14.000
74411	TRUCK TRAILER	17				3370.000			5.370.000
74422	MOBILE CRANE	1				50.000			50.000
74423	BELT CONVEYOR	2				73761.456			73761.456
74424	RECLAIMER	5				1231.5			1,231.5

TOTALS

1991
 1582
 1533
 1584
 1583
 1997
 1588
 1589
 1593

157,517.39

GRAND TOTAL = 157,517.39

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1981-1990 YEARS

COST-BASIS

COMMODITY CODE 12100 1

1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 TOT.CO

URDUC/99 TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR EXPENSE™
 PLANT NAME : G.L.I. 4 TH UNIT
 PLANT CAPACITY : 231 TPA
 LOCATION : SEYITDER/KOTAHYA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1980 U.S.A. DOLLARS

SIIC CODE	BASIC MACHINE NAME	QT	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	TOT.CO
45211	WASTE BUIKER	4	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	96.000

TOTALS

1591	96.000
1592	
1593	
1594	
1595	
1596	
1597	
1598	
1599	
1590	
GRAND TOTAL =	96.000

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UNICE/SFC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR EXPANSION
 PLANT NAME : G-LEL 4 TH UNIT
 PLANT CAPACITY : 231 TPH
 LOCATION : SEYITONER/KOTAHYA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1990 U.S.A. DOLLARS

SITC	CODE	BASIC MACHINE NAME	QT
*****	*****	*****	****
72341		MOTOR GRADER	8
72342		ELECTRIC EXCAVATOR	5
72343		BLAST HOLE DRILL MACHINE	4
72348		DRILLING MACHINE	1
72831		VIBRATORY GRIZZLY	2
72832		IMPACT CRUSHER	1
74220		CENTRIFUGAL PUMP	4
74411		TRUCK TRAILER	35
74422		MOBILE CRANE	1
74426		STEEL PLATE CONVEYOR	5

T O T A L S

1981
 1982 23,974,000
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL = 23,974,000

COST-BASIS 1981-1990 YEARS

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COMMODITY CODE : 2100 1

1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
	1450.000				1.450.000
	3390.000				3.090.000
	1800.000				1.800.000
	500.000				500.000
	1376.000				1.076.000
	115.000				115.000
	28.000				28.000
	13220.000				11.220.000
	50.000				50.000
	545.000				645.000

UNED/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR EXPANSION
 PLANT NAME : J.L.L. OENLER
 PLANT CAPACITY : 185.0 TPH
 LOCATION : OENLER/MUTAMA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1990 U.S.A. DOLLARS

SITC CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	TOT.CO
72321	TROLLEY LOCOMOTIVE	3		300.000					300.000
72323	MID. AND FRIC. PROP	3440		650.140					650.140
7422C	CENTRIFUGAL PUMP	14		280.000					280.000
74341	AUXILIARY FAN	28		56.000					56.000
74342	MINE FAN	1		160.000					160.000
74421	MATERIAL WINCH	14		5600.000					5.600.000

TOTALS

1981	
1982	7.046.160
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	
GRAND TOTAL	7.046.160

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COST-BAR II 1981-1990 YEARS PAGE 1

COMMODITY CODE 2100 1

UNIQ/SPT TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR EXPANSION
 PLANT NAME : J.A.C. GAYRMAN
 PLANT CAPACITY : 55.5 TON
 LOCATION : BIRPAZARI/ANKARA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1980 U.S.A. DOLLARS

SITC CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	TOT.CO
72333	DRILLING MACHINE	5		2500.000					2.500.000
72352	TRALLEY 1 MONOTIVE	10		1000.000					1.000.000
72323	HID.AND FRIC.PROP	1800		340.200					340.200
7322C	CENTRIFUGAL PUMP	4		400.000					400.000
74212	AIR COMPRESSOR	1		390.000					390.000
75421	MATERIAL WITCH	1		400.000					400.000
17111	POWER TRANSFORMATOR	8		96.000					96.000

TOTALS

1981	
1982	5.126.200
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	
GRAND TOTAL	5.126.200

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COMMODITY CODE : 2100 1

UNICEF/SPC TURKISH COAL WRAVS (T.C.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR MODERNIZATION
 PLANT NAME : S.S.I. TUNCELIK
 PLANT CAPACITY : 1300 TPA
 LOCATION : TAPPAH/ANTALYA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1000 U.S.A. DOLLARS

SITC CODE	BASIC MACHINE NAME	QT	1981	1982	1983-1987	1988	1989	1990	TOT.CO
72301	MOTOR GRADER	23		4180.000					4.180.000
72342	ELECTRIC EXCAVATOR	7		24940.000					24.940.000
72343	ROAD WHEVER	8		3330.000					3.330.000
72352	TROLLEY LOCOMOTIVE	4		430.000					400.000
72353	MID.AND FRIG.PROP	1870		353.430					353.430
7422C	CENTRIFUGAL PUMP	21		342.000					342.000
74341	AUXILIARY FAN	32		64.000					64.000
74411	DUMP TRUCK	24		800.000					8.400.000
74421	MATERIAL WINCH	23		9200.000					9.200.000

TOTALS
 1981
 1982 31.129.430
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL= 51.129.430

UNIC/SFC TURKISH COAL WORKS (T-K-11)
CAPITAL GOODS DEVELOPMENT PROJECT
NEEDS ASSESSMENT FOR MODERNIZATION
PLANT NAME : S.L.F. SEYFEMER
PLANT CAPACITY : 1300 TPA
LOCATION : SEYFEMER/KOTAHYA
ANTICIPATED DATE OF COMMISSIONING :
UNIT COST IN 1990 U.S.A. DOLLARS

COMMODITY CODE : 2100 1

1981-1990 YEARS

1981 1982 1983-1987 1988 1989 1990 1991-1995

SITC CODE	BASIC MACHINE NAME	QTY	1981	1982	1983-1987	1988	1989	1990	1991-1995
72341	MOTOR GRADER	9		1700.000					1.700.000
72342	ELECTRIC EXCAVATOR	3		4500.000					4.500.000
72343	DRILLING MACHINE	4		1900.000					3.900.000
74411	DUMP TRUCK	24		8400.000					8.400.000

TOTALS
1981 16.500.000
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991-1995

GRAND TOTAL = 16.500.000

UNICC/SPC TURKISH COAL WORKS (T.C.O.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR MODERNIZATION
 PLANT NAME : C.O.L.E.S.T.MA FRAME
 PLANT CAPACITY : 250 TPH
 LOCATION : JUMAYIR
 ANTICIPATED DATE OF COMPLETION :
 UNIT COST IN 1980 U.S.A. DOLLARS

SITC CODE	BASIC MACHINE NAME	QTY	1981	1982	1983-1987	1988	1989	1990	TOT. CO
72311	BULLDOZER	6		300.000					800.000
72312	ELECTRICAL EXCAVATOR	6		480.000					4.800.000
72313	BLAST HOLE DRILL MACHINE	6		1800.000					1.800.000
72322	TRALLEY LOCOMOTIVE	2		200.000					200.000
75313	AIR COMPRESSOR	1		320.000					390.000
76342	MINE FAN	1		160.000					160.000
74411	DUMP TRUCK	15		5250.000					9.750.000

TOTALS
 1981
 1982 13.480.000
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL= 13.680.000

UNIT/SPC TUNING COAL WORKS (T.K.01)
 CAPITAL COSTS DEVELOPMENT PROJECT
 MAJORARY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : F.A.I. SERKOV - 1986
 UNIT COST IN 1000 USA DOLLARS

COMMODITY CODE : 2130 1
 COST BASIS 1991-2000 YEARS
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SIC CODE	BASIC MACHINE NAME	QTY	1971	1972	1973	1974	1976	1979	1984	1986	1987	1988	1989	1990	YTD COST
72341	BULLDOZER	14		2400											2800
72342	ELECTRIC EXCAVATOR	4		470							0121				0990
72343	DIAMOND DRILL MACHINE	5		2700											2700
72348	DRILLING MACHINE	1		900											900
72331	VIBRATORY GRIZZLY	2					1076								1076
72232	IMPACT CRUSHER	2									240				240
74220	CENTRIFUGAL PUMP	15									105				105
71322	BOTTOM DUMP TRUCK	38		7700											14900
74426	STEEL PLATE CONVEYOR	2													306

COST
 1991 7,200
 1992 1,4170
 1993
 1994
 1995 1,332
 1996
 1997 3,455
 1998
 1999
 2000
 GRAND TOTAL= 32,207

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UNIDOC/FCO TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT COMMODITY CODE
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : E.L.T. SONA - 1997
 UNIT COST IN 1000 USA DOLLARS

SITC CODE	BASIC MACHINE NAME	QT	1991	1997
*****	*****	*****	*****	*****
72341	BULLDOZER	15		
72342	ELECTRIC EXCAVATOR	4		
72343	BLAST HOLE DRILL MACHINE	5		
72348	DRILLING MACHINE	1		
72831	VIBRATORY GRIZZLY	2		
72832	IMPACT CRUSHER	2		
74220	CENTRIFUGAL PUMP	5		
74411	DUMP TRUCK	31		2760
74426	STEEL PLATE CONVEYOR	1		

T O T A L S

1991
 1992 2,760
 1993 14,620
 1994
 1995
 1996 1,229
 1997
 1998 6,385
 1999
 2000

GRAND TOTAL = 24,994

COST_BASIS 1991-2000 YEARS

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1993	1994	1995	1996	1997	1998	1999	2000	TOT.CO
*****	*****	*****	*****	*****	*****	*****	*****	*****
3000								3000
470					6120			6590
2250								2250
500								500
			1076					1076
					230			230
					35			35
8400								11160
			153					153

UNIDOC5FC TURKISH CRAL WYKE (T.C.K.1)
 CAPITAL COST DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : A.L.O.I. ORHARELI 1995
 UNIT COST IN 2000 USA DOLLARS

COMMODITY CODE : 3100 1
 COST_YEAR : 1991-2000 YEARS
 PAGE : 1
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SITE CODE	BASIC MACHINE NAME	QTY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.CO
72241	JULDOZER	7	1400										1400
72242	ELECTRIC EXCAVATOR	8	240					7240					7180
72243	WAST HOLF DRILL MACHINE	5	2250										2250
72244	DRILLING MACHINE	1	500										500
72245	VIBRATORY GRIZZLY	2		1076									1076
72246	IMPACT CRUSHER	2						230					230
72247	CENTRIFUGAL PUMP	4						28					28
72248	DUMP TRUCK	29	6100								4560		10860
72249	STEEL PLATE CONVEYOR	2										306	306

TOTALS
 1991 11,390
 1992 1,392
 1993 1,392
 1994 6,493
 1995 6,493
 1996 6,493
 1997 6,493
 1998 6,493
 1999 6,493
 2000 6,493
 GRAND TOTAL= 21,830

UNICE/SPO TURKISH COAL WORKS (T.K.W.)
CAPITAL GOODS DEVELOPMENT PROJECT
MACHINERY REQUIREMENTS FOR REPLACEMENT
NAME OF PLANT AND YEAR OF STARTING : OLLU. KOLES - 1985
UNIT COST IN 1990 USA DOLLARS

COMMODITY CODE : 2100 1

COST BASIS 1991-2000 YEARS

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SITC CODE	BASIC MACHINE NAME	QT	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.CO
72341	BULDOZER	12	2400										2400
72342	ELECTRIC EXCAVATOR	11	940					12120					13060
72343	BLAST HOLE DRILL MACHINE	4	1800										1800
72349	DRILLING MACHINE	1	500										500
72531	VIBRATORY GRIZZLY	1			1076								1076
72532	IMPACT CRUSHER	2						230					230
74220	CENTRIFUGAL PUMP	4						78					78
74421	DUMP TRUCK	59	19950								60	4950	24960
74422	STEEL PLATE CONVEYOR	2				306							306

TOTALS
1991 25,590
1992
1993 1,382
1994
1995
1996 12,378
1997
1998
1999 60
2000 4,950
GRAND TOTAL= 44,360

UNIDO/SPO TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT

COMMODITY CODE = 2100

NAME OF PLANT AND YEAR OF STARTING : SIVAS-KANGAL - 1985
 UNIT COST IN 1000 USA DOLLARS

SITE CODE	BASIC MACHINE NAME	QT	1991	1992	1993
72341	BULLDOZER	14	2800		
72342	ELECTRIC EXCAVATOR	13	470		
72343	BLAST HOLE DRILL MACHINE	13	5850		
72343	DRILLING MACHINE	2	1000		
72831	VIBRATORY GRITZLY	2			1076
72832	IMPACT CRUSHER	2			
74220	CENTRIFUGAL PUMP	4			
74411	DUMP TRUCK	69	18200		
74425	STEEL PLATE CONVEYOR	1			153

TOTALS

1991 23,320

1992

1993 1,229

1994

1995

1996 15,518

1997

1998

1999 180

2000 6,300

GRAND TOTAL= 51,547

COST BASIS 1991 2000 YEARS

PAGE: 1

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1994	1995	1996	1997	1998	1999	2000	TOT.CO
							2800
		15260					15730
							5850
							1000
							1076
		230					230
		28					28
					180	6300	24680
							153

UNID07SP0 TURKISH COAL WORKS (T.Y.13)
 CAPITAL GOODS DEVELOPMENT PROJECT COMMODITY CODE
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : F.I.I. BAYRAK - 1945
 UNIT COST IN 1990 USA DOLLARS

SITC CODE	BASIC MACHINE NAME	QT	1990	1992
72341	BULDOZER	14	2900	
72342	ELECTRIC EXCAVATOR	8	940	
72343	BLAST HOLE DRILL MACHINE	8	1600	
72343	DRILLING MACHINE	2	1000	
72831	VIBRATORY GRIZZLY	4		
72832	IMPACT CRUSHER	2		
74220	CENTRIFUGAL PUMP	6		
74421	DUMP TRUCK	48	16450	
74426	STEEL PLATE CONVEYOR	4		

TOTALS

1990	24,790
1992	
1993	2,764
1994	
1995	
1996	7,892
1997	
1998	
1999	60
2000	
GRAND TOTAL=	35,506

UNIT/COST TURKISH COAL WORKS (T.C.S.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : F.L.I. DENIS - 1947
 UNIT COST IN 1000 USA DOLLARS

COST BASIS 1991-2000 YEARS

COMMODITY CODE : 2100

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SYIC CODE	MACHINE NAME	QTY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOTAL
72241	BULLDOZER	15			3700								3000
72342	ELECTRIC EXCAVATOR	6			470				6120				6590
72343	BI-AST MULE DRIII MACHINE	5			2250								7750
72348	DRILLING MACHINE	1			500								500
72831	VIBRATORY GRIZZLY	2						1076					1076
72832	IMPACT CRUSHER	2							230				230
74220	CENTRIFUGAL PUMP	5								35			35
74411	DUMP TRUCK	31			2760								11160
74426	STEEL PLATE CONVEYOR	1						153					153

TOTALS

1991	
1992	2,760
1993	14,620
1994	
1995	
1996	1,229
1997	
1998	6,385
1999	
2000	
GRAND TOTAL =	24,994

SITE CODE	BASIC MACHINE NAME	QTY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.CN
72341	DULLOZER	14					2800						2800
72342	WELL TRADER	12					5640						5640
72343	DRILLING MACHINE	1					500						500
74220	CENTRIFUGAL PUMP	2					14						14
74611	DUMP TRUCK	15					5250						5250

TOTALS

1991	
1992	
1993	
1994	
1995	14,204
1996	
1997	
1998	
1999	
2000	
GRAND TOTAL	14,204

UNITARY TURNISH COST BASIS (T.M.)
 CAPITAL COSTS DEVELOPMENT PROJECT
 MACHINERY REPLACEMENT FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : C.I.T. CAN - 1987
 UNIT COST IN 1990 USA DOLLARS

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SIC CODE	BASIC MACHINE NAME	UNIT	1991	1997	1993	1994	1995	1996	1997	1998	1999	2000	TOTL CO
72341	WINDOZER	34			4900								6800
72342	ELECTRIC EXCAVATOR	23			2970					22740			25540
72343	BLAST MNT DRILL MACHINE	16			7300								7200
72343	DRILLING MACHINE	2			1000								1000
72821	VIBRATORY GRIZZLY	2						1076					1076
72822	IMPACT CRUSHER	2								230			230
74220	CENTRIFUGAL PUMP	4								42			42
74431	JUMP TOWER	108			5640								37200
74432	STEEL PLATE CONVEYOR	2										306	306

TOTALS

1991	5.640
1992	50.320
1993	1.382
1994	23.012
1995	
1996	
1997	
1998	
1999	
2000	
GRAND TOTAL =	83.054

COST BASIS 1961-2000 YEARS

COMMODITY CODE : 2100 1

UNIT 7500 TON/154 COAL WRRS (1.5-1.8)
 CAPITAL COST DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : F.O.I. VAYAGAN - 1985
 UNIT COST IN US\$ USA DOLLARS

SITC CODE	MACHINE NAME	QTY	1961	1962	1963	1974	1975	1976	1977	1978	1979	1980	TOTAL
72341	BURINORZ	12	2400										7400
72342	ELECTRIC EXCAVATOR	7	940					5120					7060
72343	WAST WOLF DRILL MACHINE	8	3600										3600
72345	DRILLING MACHINE	2	1000										1000
72831	VIBRATORY GRIZZLY	2			1076								1076
72832	IMPACT CRUSHER	1						115					115
76223	CENTRIFUGAL PUMP	2						14					14
74411	DUMP TRUCK	54	13300										6300
74426	STEEL WARE CONVEYOR	2											306

TOTALS
 1991 21,240
 1992 1,382
 1993 1,594
 1994 1,594
 1995 6,249
 1996 1,597
 1997 1,593
 1998 120
 1999 6,300
 2000
 GRAND TOTAL = 35,291

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**DEVELOPMENT OF
CAPITAL GOODS INDUSTRIES**

DP/TUR/76/034

TURKEY

TECHNICAL REPORT NO. XVII. - DEMAND FOR CAPITAL GOODS FOR COAL MINING

VOL. II

**DEVELOPMENT OF
CAPITAL GOODS INDUSTRIES
DE/TUR/76/034
TURKEY**

Technical Report No. XVII: Demand for Capital Goods for Coal Mining

VOL. II

UNITED NATIONS DEVELOPMENT PROGRAMMES IN TURKEY

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANISATION

Restricted

Feb. 1983

English

**DEVELOPMENT OF
CAPITAL GOODS INDUSTRIES
DP/TUR/76/034
TURKEY**

**Technical Report No. XVII: Demand for Capital Goods
for Coal Mining.**

Vol. II

**Prepared for the Government of Turkey
by the United Nations Industrial Development Organisation
acting as executing agency for the United Nations Development Programme**

**Based on the work of
Capital Goods Development Project Team in Turkey**

**United Nations Industrial Development Organisation
Vienna**

**This report has not been cleared with the United Nations Industrial
Development Organisation which does not, therefore, necessarily share
the views presented.**

UNITED NATIONS **NATIONS UNIES**
DEVELOPMENT PROGRAMME IN TURKEY
UNIDO-CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

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DEVELOPMENT PROGRAMME IN TURKEY
UNIDO-CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

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Birleşmiş Milletler Kalkınma Programı

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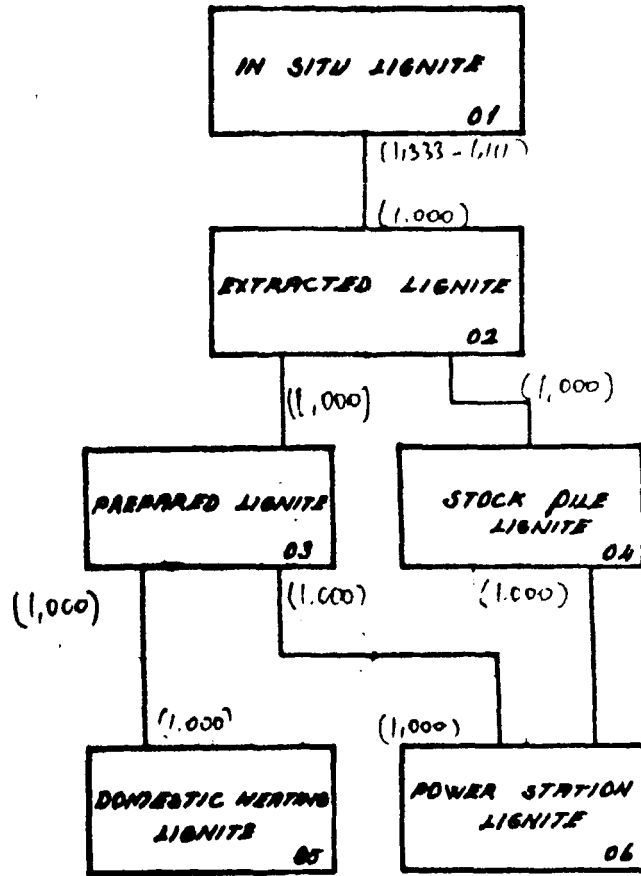
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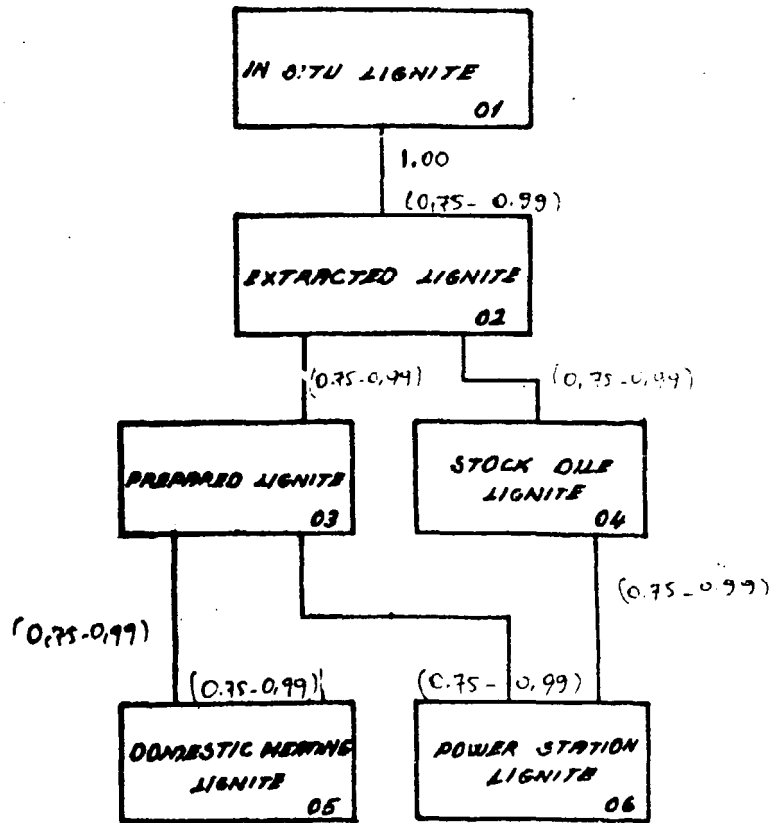
DEVELOPMENT PROGRAMME IN TURKEY
UNIDO-CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

(v)

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COAL MINING - LIGNITE		COMMODITY CODE
		2100 1
UNIDO/SPO (T.K.I.)		
CAPITAL GOODS DEVELOPMENT PROJECT		
MODULAR PRODUCTION DIAGRAM		
PREPARED BY	DRAWN BY	CHECKED BY
Salman Kirkeç	Metin Gedeñi	Ugur Arbas
DATE	CHECKED BY	APPROVED BY
April, 1982	Jan Markus	W. Luther



COAL MINING-LIGNITE		COMMODITY CODE
		2100 1
UNIDO/SPO (T.K.I.)		
CAPITAL GOODS DEVELOPMENT PROJECT		
MODULAR PRODUCTION DIAGRAM		
MATERIAL BALANCE		
PREPARED BY	DRAWN BY	CHECKED BY
Salman Kırkçı	Metin Göktaş	Uğur Arbaş
DATE	CHECKED BY	APPROVED BY
April, 1982	Jan Malkus	M. Luther

UNIDO/SPO (T.K.i.)

CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

COMMODITY CODE : 2100 1

COMMODITY NAME : Coal Mining-lignite

PREPARED BY Selman Kırkcı	CHECKED BY Malkus	APPROVED BY M.Luther UNIDO CTA
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PRODUCTION ACTIVITIES CHART

PRODUCTION STAGE		TECHNOLOGY		CRITICAL EQUIPMENT		DESIGN LINE CAPACITY	
Code	Name	Code	Name	Name	Capacity Range	Code	Capacity t/h
02	Extracted Lignite	1	Open pit mining	Electric excavator	Bucket capacity ¹⁰⁻ ₁₅ m ³	1	120.4 BLI Orhaneli
			"	"	"	2	333.3 BLI Keles
			"	"	"	3	370.4 BLI Soma-Işıklar
			"	"	"	4	648.1 BLI Yatağan
			"	"	"	5	710.2 ÇLI Çan
			"	"	"	6	777.8 SKLI Kangal
		2	Open pit mining	Bucket wheel excavator	Bucket capacity 10 x 2.3 m ³	1	4.549 ABL Elbistan B
		3	Underground Mining	Mining locomotive	Power 67 Kw	1	94.6 BLI Soma-Işıklar
			"	"	"	2	179.9 BLI Orhaneli
		03	Prepared lignite	1	Crushing	Impact Crusher	600 t/h
	"			"	"	2	329.6 BLI Keles
	"			"	"	3	444.4 BLI Soma-Işıklar
	"			"	"	4	640.7 BLI Yatağan

UNIDO/SPO (T.K.I.)

CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

COMMODITY CODE : 2100 1

COMMODITY NAME : Coal Mining-lignite

PREPARED BY Selman KORKU	CHECKED BY San Malak	APPROVED BY M.Luther UNIDO CTA
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PRODUCTION ACTIVITIES CHART

PRODUCTION STAGE		TECHNOLOGY		CRITICAL EQUIPMENT		DESIGN LINE CAPACITY	
Code	Name	Code	Name	Name	Capacity Range	Code	Capacity t/h
	Stock piled lignite					5	704.6 ÇLI Çan
						6	766.6 SKLI Kangal
05	Domestic Heating Lignite	1	Handling	Stacker	5600 t/h	1	4-549 AEL Elibistan
		1	Conveying	Belt Conveyor	500 t/h	1	40.7 BLI Keles
						2	48.5 BLI Orhaneli
						3	50.0 ÇLI Çan
						4	62.9 BLI Yatağan
						5	100.0 SKLI Kangal
						6	185.3 BLI Soma-Işıklar
06	Power station lignite	1	Conveying	Belt Conveyor	500 t/h	1	221.5 BLI Orhaneli
						2	260.8 BLI Soma-Işıklar
						3	288.9 BLI Keles
						4	577.8 BLI Yatağan

UNIDO / SPO (T.K.I.)

CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

COMMODITY CODE : 2100 1

COMMODITY NAME : Coal Mining Lignite

PREPARED BY Selman Kırkçıl JanMalkus	CHECKED BY K. Luther	APPROVED BY UNIDO CTA
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PRODUCTION ACTIVITIES CHART

PRODUCTION STAGE		TECHNOLOGY		CRITICAL EQUIPMENT		DESIGN LINE CAPACITY	
Code	Name	Code	Name	Name	Capacity Range	Code	Capacity
						5	654.6 Çil. Ag.
						6	666.0 SKİİ Kargalı
						7	4.549 AEL Bİbistan B

-5-

IN SITU LIGNITE
01



EXTRACTED LIGNITE
02

Capacity Calculation

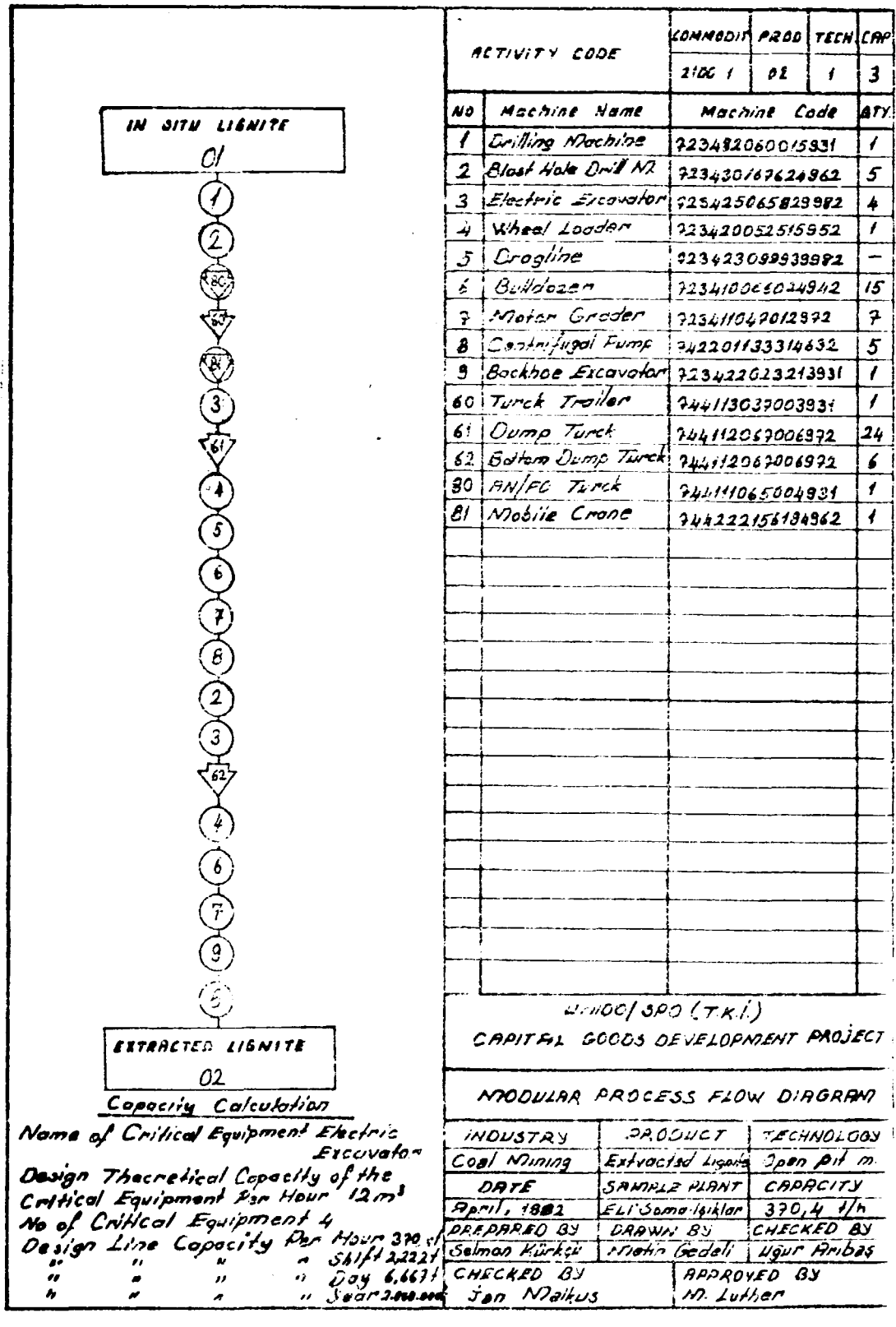
Name of Critical Equipment Mining Locomotive
 Design Theoretical Capacity of the Critical Equipment 67 Kw
 No of Critical Equipment 3
 Design Line Capacity Per Hour 94.7t
 Design Line Capacity Per Shift 758t
 Design Line Capacity Per Day 1.515t
 Design Line Capacity Year 500.000t

ACTIVITY CODE	COMMODIT	PROD.	TECH.	CAP.
	0100 1	02	3	1
No	Machine Name	Machine Code	Afg	
1	73111044215952	Power Transformer	3	
2	723432662015931	Drilling Machine	1	
3	743421061113942	Mine Fans	2	
4	743130255113652	Air Compressor	2	
5	742201130314651	Centrifugal Pump	5	
6	743411033111921	Auxiliary Fan	10	
7	723530052001912	Mtd and Fric. Propps	2000	
60	7442611372014362	Cross Bar Conveyor	8	
61	7442110474025352	Material Winch	2	
62	723520136416382	Trolley Locomotive	3	
80	723431155425962	Road Header	2	

UNIGO/SP01 (T.K.I.)
CAPITAL GOODS DEVELOPMENT PROJECT

MODULAR PROCESS FLOW DIAGRAM

INDUSTRY	PRODUCT	TECHNOLOGY
Coal Mining	Extracted Lignite	Underground
DATE	SAMPLE PLANE	CAPACITY
April 1982	ELI Soma Isiklar	94.7 t/h
PREPARED BY	DRAWN BY	CHECKED BY
Selman Kırkçü	Metin Gedeli	Ugur Arıbaş
CHECKED BY	APPROVED BY	
Jan Malkus	M. Luther	



UNIDO/SPO (T.X.I.)																										
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY																										
Sample Plant: B11 - Soma - Isiklar																										
PRODUCTION ACTIVITY Code: 210010731																										
Sr No	Mark/Model	Basic Machine Nomenclature	Major Specific (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac	Manufac	Manufac	Origin	Qty	Purchase Cost (in Thousands) And Currency		Constant 1980 Year Cost US\$ (in Thousands)		Year of Purchase and	SITC Code (For Computer)									
							Characte-ristic-1	Characte-ristic-2	Characte-ristic-3			Unit	Total	Unit	Total		Remarks	1	2	3	4	5	6	7	8	9
8	9	10	11	12	13	14	15	16	17	18																
1		Power Transformer	16 MVA	15 KV	Three Phase	Oil	50	Steel Fabricated	10	Imported	3	L 12	L 36	L 12	L 36	1980	77111	10	442215952							
2		Drilling Machine	500 mm	250 m	-	Rubber Tired	60	Steel Fabricated	4	Turkey	1	\$ 500	\$ 500	\$ 500	\$ 500	1980	72343	20	62015931							
3		Mine Fans	1000 m ³ /min	up to 150 kg/cm ²	Air	Straight Blades	10	Steel Fabricated	5	Imported	2	\$ 160	\$ 320	\$ 160	\$ 320	1980	74342	10	62113942							
4		Air Compressor	100 m ³	50 kg/cm ²	Air	Horizontal	10	Carbon Steel Casting	10	Imported	2	\$ 390	\$ 1560	\$ 390	\$ 1560	1980	74313	02	55113652							
5		Centrifugal Pump	80 m ³ /h	60 m	Cold dirty and Muddy	Horizontal	35	Carbon Steel Casting	10	Turkey	5	\$ 20	\$ 100	\$ 20	\$ 100	1980	74220	11	33314651							
6		Auxiliary Fan	80 m ³ /Sec	25 mm	Air	Forced Draught	up to 5	Steel Fabricated	1	Turkey	10	L 2	L 20	L 2	L 20	1980	74341	10	33111921							
7		Hydraulic and Frictional Prop	50 ton	-	-	-	600	Steel Fabricated	200	Imported	2000	\$ 0.189	\$ 378	\$ 0.189	\$ 378	1980	72353	00	50004962							
8		Cross Bar Conveyor	600 t/h	500 mm	-	Bulk Material	30	Steel Fabricated	10	Imported	6	\$ 151	\$ 1441	\$ 153	\$ 14841	1980	74426	13	72014952							
9		Material Hatch	100 ton	30 m	-	Electrical	50	Steel Fabricated	10	Imported	4	\$ 400	\$ 800	\$ 400	\$ 800	1980	74401	04	77025952							
10		Trolley Locomotive	57 KW	30 KN	10 m/sec	Trolley	100	Steel Fabricated	10	Imported	1	L 100	L 300	L 100	L 300	1980	72352	04	56416962							
11		Road Header	7 min	900 mm	100 KW	Multi-Stage	-	Steel Fabricated	10	Imported	2	L 180	L 360	L 180	L 360	1980	72341	11	55425362							

UNIDO/SPO (T.K.I.)
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

PLANT SURVEY FORM

Sample Plant: ELI-SOMA ISIKLAR

PRODUCTION ACTIVITY Code: 210010211

Sr. No.	Mark/Model	Basic Machine Nomenclature	Major Specific. (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac. Characteristic-1	Manufac. Characteristic-2	Manufac. Characteristic-3	Origin	Qty	Purchase Cost (in Thousands) And Currency		Constant 1980 Year Cost US\$ (in Thousand)		Year of Purchase and	SITC Code (Per Computer)		
							WT (Tons)	MATL	WT (Tons)				Unit	Total	Unit		Total	Remarks	1
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
1		Drilling Mach.	500 mm	250 mm	-	Rubber-Tired	60	Steel Fab.	4	Turkey	1	\$ 500	\$ 500	\$ 500	\$ 500	1980	72343	20	62015931
2		Blast Hole Drill Machine	228 mm	20 mm	175 KW	Crawler	30	Steel Fab.	15	Imp.	5	\$ 450	\$ 2250	\$ 450	\$ 2250	1980	72343	21	67624962
3		Electric Excavator	12 m ³	9 m	500 KW	Crawler	600	Steel Fab.	60	Imp.	4	\$ 1500	\$ 6000	\$ 1500	\$ 6000	1980	72342	30	65829982
4		Wheel Loader	8 m ³	5 m	250 KW	Rubber Tired	50	Steel Fab.	10	Imp.	1	\$ 470	\$ 470	\$ 470	\$ 470	1980	72342	00	52515952
5		Dragline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6		Bulldozer	300 HP	27 Km/h	-	Crawler	40	Steel Fab.	9	Imp.	15	\$ 200	\$ 3000	\$ 200	\$ 3000	1980	72341	00	66024942
7		Motor Grader	200 HP	40Km/h	-	Rubber-Tired	8	Steel Fab.	1	Imp.	7	\$ 150	\$ 1050	\$ 150	\$ 1050	1980	72341	10	47012922
8		Centrifugal Pump	65 m ³ /h	75 m	Cold Dirty Muddy	Horizontal	30	Carbon Steel Fab.	4	Imp.	5	\$ 7	\$ 35	\$ 7	\$ 35	1980	74220	11	33314632
9		Bachho Excavator	1 m ³	7 m	125 KW	Rubber Tired	20	Steel Fab.	4	Turk.	1	\$ 120	\$ 120	\$ 120	\$ 120	1980	72342	20	23213931
60		Truck Trailer	25 tons	80Km/h	-	-	20	Steel Fab.	4	Turk.	1	\$ 60	\$ 60	\$ 60	\$ 60	1980	74411	03	37003931
61		Dump Truck	85 ton	80Km/h	-	-	100	Steel Fab.	30	Imp.	24	\$ 350	\$ 8400	\$ 350	\$ 8400	1980	74411	20	67006972
62		Bottom dump Truck	120 ton	80Km/h	-	-	100	Steel Fab.	30	Imp.	6	\$ 450	\$ 2700	\$ 450	\$ 2700	1980	74411	20	67006972
80		AW/FP Truck	10 ton	70Km/h	-	-	25	Steel Fab.	3	Turk	1	\$ 60	\$ 60	\$ 60	\$ 60	1980	74411	10	65004931
81		Mobile crane	75 ton	60	Single Hoist	Others	40	Steel Fab.	15	Imp.	1	\$ 60	\$ 60	\$ 60	\$ 60	1980	74422	21	56194962

UNIDO/SPO (T.K.I.)
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

PLANT SURVEY FORM

Sample Plant : g11 - Boma - Igaklar

PRODUCTION ACTIVITY Code: 210010612

Sr. No.	Mark/ Model	Basic Machine Nomenclature	Major Specific (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac. Characteristic-1	Manufac. Characteristic-2	Manufac. Characteristic-3	Origin	Qty	Purchase Cost (in Thousands) And Currency		Constant 1980 Year Cost US\$ (in Thousand)		Year of Purchase and	SITC Code (For Computer)																						
							WT (Tons)	MATL	WT (Tons)			Unit	Total	Unit	Total		Remarks	3	2	3	4	5	6	7	8	9	10	11	12										
40		Coal Loading Bunker	150 m ³	5 m β	75° C	Rectangular/ Cubic	20	Stainless Steel	20 mm	Turkey	1	₺ 24	₺ 24	\$ 24	\$ 24	1980	69211	02	22313621																				
41		Waste Bunker	100 m ³	7.5 m β	75° C	Rectangular/ Cubic	20	Stainless Steel	20 mm	Turkey	1	₺ 24	₺ 24	\$ 24	\$ 24	1980	69211	02	23313621																				
60		Belt Conveyor	500 t/h	500 mm	-	Bulk Material	100	Steel Fabricated	25	Imported	1	₺ 123	₺ 123	\$ 123	\$ 123	1980	74426	02	72016972																				
61		Belt Conveyor	100 t/h	500 mm	-	Bulk Material	100	Steel Fabricated	25	Imported	1	₺ 123	₺ 123	\$ 123	\$ 123	1980	74426	01	32016972																				

UNIDO/SPO (T.K.I.)
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

PLANT SURVEY FORM

Sample Plant: ELI-YACATAN

PRODUCTION ACTIVITY Cod. 210010214

No.	Mark/Model	Basic Machine Nomenclature	Power (kW)	Power (hp)	Motor Speed (RPM)	Type (Classification)	Material (kg)	Material (kg)	Material (kg)	Origin	Purchase Cost (in thousands)		Constant 1980 Year Cost (US\$ in thousands)		Year of Purchase and	SITC Code (4+ Computer)			
											Unit	Total	Unit	Total		17	18	19	20
1		Drilling Machine	1000	1360		Horizontal	50	Steel	Imp	2	\$ 500	\$ 1000	\$ 500	\$ 1000	1980	72343	20	62015901	
		Blas Drill Machine					50	Steel	Imp	3	\$ 350	\$ 3500	\$ 450	\$ 3600	1980	72343	01	67674960	
		Horizontal Drilling			100-150	Horizontal	50	Steel	Imp	4	\$ 1200	\$ 7000	\$ 1500	\$ 6000	1980	72342	00	65129980	
		Vertical Driller			120-150	Vertical	50	Steel	Imp	2	\$ 370	\$ 940	\$ 120	\$ 960	1980	72342	00	2515950	
		Drill Press			100-150	Vertical	50	Steel	Imp	1	\$ 14000	\$ 18000	\$ 10000	\$ 18000	1980	72342	30	49919980	
		Drill Press			100-150	Vertical	50	Steel	Imp	12	\$ 200	\$ 2400	\$ 200	\$ 2400	1980	72341	00	66 24940	
		Motor Grader	370 hp	490 hp		Horizontal	1	Steel	Imp	4	\$ 150	\$ 600	\$ 150	\$ 600	1980	72341	10	47012020	
8		Centrifugal Pump	65 m ³ /h	75 m ³ /h		Horizontal	30	Cast Iron	Imp	2	\$ 7	\$ 14	\$ 7	\$ 14	1980	74220	11	33114632	
9		Backhoe Excavator	1 m ³	2 m ³	120 KW	Vertical	20	Steel	Turk	1	\$ 120	\$ 120	\$ 120	\$ 120	1980	72342	20	27213931	
60		Truck Trailer	25 ton	80km/h			20	Steel	Turk	1	\$ 60	\$ 60	\$ 60	\$ 60	1980	74411	03	37003931	
61		Dump Truck	85 ton	80km/h			100	Steel	Imp	38	\$ 350	\$ 13300	\$ 350	\$ 13300	1980	74411	20	67006972	
62		Bottom Dump Truck	120 ton	80km/h			100	Steel	Imp	14	\$ 450	\$ 6300	\$ 450	\$ 6300	1980	74411	20	67006972	
80		AN/VO Truck	10 ton	70km/h			25	Steel	Turk	2	\$ 60	\$ 120	\$ 60	\$ 120	1980	74411	10	65004931	
81		Mobile Crane	75 ton	30 m	Single Hoist	Others	40	Steel	Imp	1	\$ 50	\$ 50	\$ 50	\$ 50	1980	74422	21	56194962	

UNIDO/SPO (T.S.I.) CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY										PRODUCTION ACTIVITY CODE: 21001014							
PLANT SURVEY FORM										Sample Plant BII Tazagan							
Sr No	Mark/Model	Basic Machine Nomenclature	Major Specific Features	Major Spec. (Optional)	Major Spec-2 (Optional)	Type Description	Manufac. Name	Origin	Purchase Cost (in Thousands) And Currency	Constant Year Cost (in Thousands) US\$	Year of Purchase and	SITC Code (For Computer)	Total		Remarks		
													Unit	15		16	17
1	2																
40		Coal Loading Bunker	100 m ³	3 x 3	700	Rectangular/Quadr	Stainless Steel	Turkey	-	-	-				69211	02	2311621
41		Waste Bunker	100 m ³	3 x 3	700	Rectangular/Quadr	Stainless Steel	Turkey	-	-	-				69211	02	2311621
60		Belt Conveyor	500 m	3 m	-	Bulk Material	Steel	Imported	\$ 123	\$ 492	1980			74426	02	72016972	
61		Belt Conveyor	100 m	3 m	-	Bulk Material	Steel	Imported	\$ 123	\$ 369	1980			74426	01	32016972	

UNIDO/SPO (T.E.I.)

CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

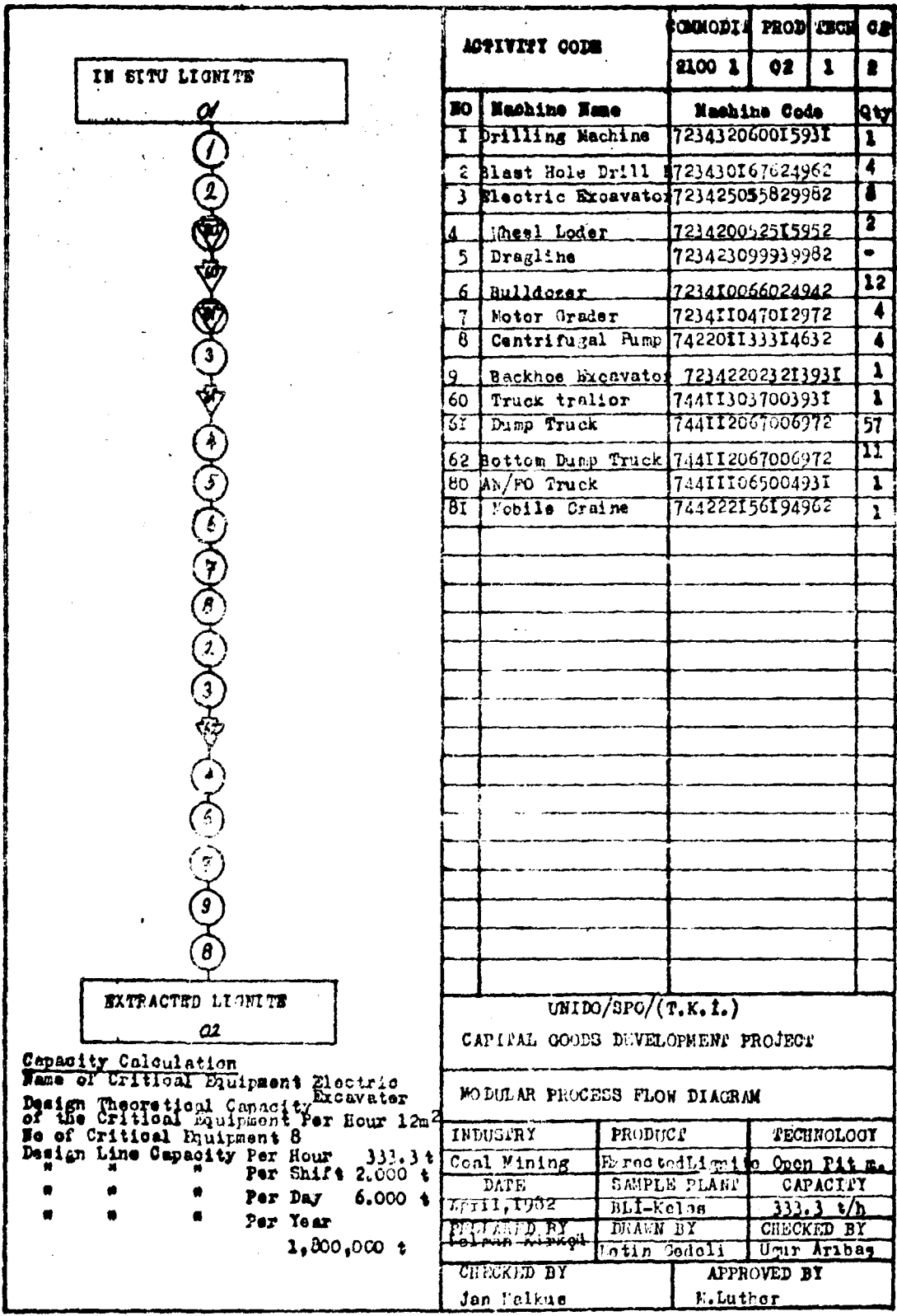
Sr. No.	Mark Model	Basic Machine Nomenclature	Major Specific. (Capacity)	Major Unit -1 (Partials)	Major Unit -2 (Partials)	Type Description
1	2	3	4	5	6	7
10		Coal Loading Shovel	150 m ³	5 m ³		Loading Shovel
11		Wheel Loader	100 m ³	10 m ³		Wheel Loader
12		Excavator	500 m ³	100 m ³		Excavator
13		Coal Hoist System	1000 m ³	1000 m ³		Coal Hoist System
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						

PLANT SURVEY FORM

Sample Plant: **MLI Assgan**

PRODUCTION ACTIVITY Code: **210010614**

Plant Loc. State - 1	Manufac. Code - 2	Manufac. Code - 3	Manufac. Code - 4	Manufac. Code - 5	Manufac. Code - 6	Manufac. Code - 7	Manufac. Code - 8	Manufac. Code - 9	Manufac. Code - 10	Constant 1980 Year Cost \$ in thousands	Year of Purchase and	SITC Code (For Computer)																									
												11	12	13	14	15	16	17	18	19	20	21	22														
01	20	00	00	00	00	00	00	00	00	00	00		7	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
01	20	00	00	00	00	00	00	00	00	00	00		7	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
01	20	00	00	00	00	00	00	00	00	00	00		7	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
01	20	00	00	00	00	00	00	00	00	00	00		7	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5



UNIDO/SPO (T.X.I.)
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

PLANT SURVEY FORM

Sample Plant: BLI-KELES

PRODUCTION ACTIVITY Code 210010212

Sr. No.	Mark/Model	Basic Machine Nomenclature	Major Specific (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac. Characteristic-1	Manufac. Characteristic-2	Manufac. Characteristic-3	Origin	Qty	Purchase Cost (in Thousands) And Currency		Constant 1980 Year Cost		Year of Purchase and	SITC Code (For Computer)		
							WT (Tons)	MATL	WT (Tons)			Unit	Total	Unit	Total		13	14	15
1		Drilling Mach.	500 mm	250 m	-	Rubber Tired	60	Steel Fab.	4	Turk	1	\$ 500	\$ 500	\$ 500	\$ 500	1980	72343	20	62015931
2		Blast Hole Drill Mach.	228 mm	20 m	175KW	Crawler	30	Steel Fab.	15	Imp.	4	\$ 450	\$1800	\$ 450	\$1800	1980	72343	01	67624962
3		Electric Excavator	7 m ³	9 m	500KW	Crawler	600	Steel Fab.	60	Imp.	8	\$1500	\$12000	\$1500	\$12000	1980	72342	50	53829982
4		Wheel loader	8 M ³	5 m	250KW	Rubber-Tired	50	Steel Fab.	10	Imp.	2	\$ 470	\$ 940	\$ 470	\$ 940	1980	72342	00	52515952
5		Dragline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6		Bulldozer	300 HP	27Km/h	-	Crawler	40	Steel Fab.	9	Imp.	12	\$ 200	\$ 2400	\$ 200	\$ 2400	1980	72341	00	66024942
7		Motor Grader	200 HP	40Km/h	-	Rubber-Tired	8	Steel Fab.	1	Imp.	4	\$ 150	\$ 600	\$ 150	\$ 600	1980	72341	10	47012922
8		Centrifugal Pump	65m ³ /h	75m	Cold Dirty Muddy	Horizontal	30	Carbon Steel Fab.	4	Imp.	4	\$ 7	\$ 42	\$ 7	\$ 42	1980	74220	11	33314632
9		Backhoe Excavator	1m ³	7m	125 KW	Rubber Tired	20	Steel Fab.	4	Turk	1	\$ 120	\$ 120	\$ 120	\$ 120	1980	72342	20	23213931
10		Truck Trailer	25 ton	80Km/h	-	-	20	Steel Fab.	4	Turk	1	\$ 60	\$ 60	\$ 60	\$ 60	1980	74411	03	37003931
11		Dump Truck	85 ton	80Km/h	-	-	100	Steel Fab.	30	Imp.	57	\$ 350	\$ 19950	\$ 350	\$19950	1980	74411	20	67006972
12		Bottom Dump Truck	120 ton	80Km/h	-	-	100	Steel Fab.	30	Imp.	11	\$ 450	\$ 4950	\$ 450	\$4950	1980	74411	20	67006972
13		AN/FO Truck	10 ton	70Km/h	-	-	25	Steel Fab.	3	Turk	1	\$ 60	\$ 60	\$ 60	\$ 60	1980	74411	10	65004931
14		Mobile Crane	75 ton	60m	Single Hoist	Others	40	Steel Fab.	15	Imp.	1	\$ 50	\$ 50	\$ 50	\$ 50	1980	74422	21	56194962

UNIDO/SPO (T.E.I.)
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

PLANT SURVEY FORM

Sample Plant : **III Keles**

PRODUCTION ACTIVITY Code: 210010312

Sr. No.	Mark/Model	Basic Machine Nomenclature	Major Specific (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac	Manufac	Manufac	Origin	Qty	Purchase Cost (in Thousands) And Currency		Constant 1980 Year Cost US\$ (in Thousand)		Year of Purchase and	Remarks	SITC Code (For Computer)									
							Characte-ristic-1 (WT (Tons))	Characte-ristic-2 (MATL)	Characte-ristic-3 (WT (Tons))			Unit	Total	Unit	Total			1	2	3	4	5	6	7	8	9	10
1		Vibratory Grizzly	500 t/a	200 mm	-	Open Type	100	Steel Fabricated	25	Imported	2	\$ 538	\$ 1076	\$ 538	\$ 1076	1980	72831	01	69016972								
2		Impact Crusher	600 t/h	100 r.p.m.	500 KW	Horizontal	50	Steel Fabricated	10	Imported	2	\$ 115	\$ 230	\$ 115	\$ 230	1980	72832	03	64615952								
60		Steel Plate Conveyor	500 t/h	600 mm	-	Bulk Materials	100	Steel Fabricated	25	Imported	2	\$ 153	\$ 306	\$ 153	\$ 306	1980	74426	11	72016972								

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PLANT SURVEY FORM

UNIDO/SPO (S.I.C.I.)
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

Sample Plant: D11 Kales

PRODUCTION ACTIVITY Code: 210010613

Sr No.	Mark/Model	Basic Machine Nomenclature	Major Specific (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Distribution)	Manufac	Manufac	Manufac	Origin	Qty	Purchase Cost (in thousands And Currency)		Constant 1980 Year Cost (US\$ in thousand)		Year of Purchase and	SITC Code (For Computer)			
							Characte-1	Characte-2	Characte-3			Unit	Total	Unit	Total		Remarks	1	2	3
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
20		Coal Loading Bunker	150 m ³	5 m β	200	Rectangular Sube	20	Stainless Steel	20 mm	Turkey	1	\$ 24	\$ 24	\$ 24	\$ 24	1980	69211	02	22313621	
21		Waste Bunker	100 m ³	7.5m β	200	Rectangular Sube	20	Stainless Steel	20 mm	Turkey	1	\$ 24	\$ 24	\$ 24	\$ 24	1980	69211	02	23313621	
22		Belt Conveyor	300 t/h	500 mm	100	Belt Material	100	Steel horizontal	20	Imported	1	\$ 123	\$ 123	\$ 123	\$ 123	1980	74426	02	72016972	
23		Belt Conveyor	100 t/h	300 mm	100	Belt Material	100	Steel horizontal	20	Imported	1	\$ 123	\$ 123	\$ 123	\$ 123	1980	74426	01	32016972	

INSITU LIGNITE
01



EXTRACTED LIGNITE
02

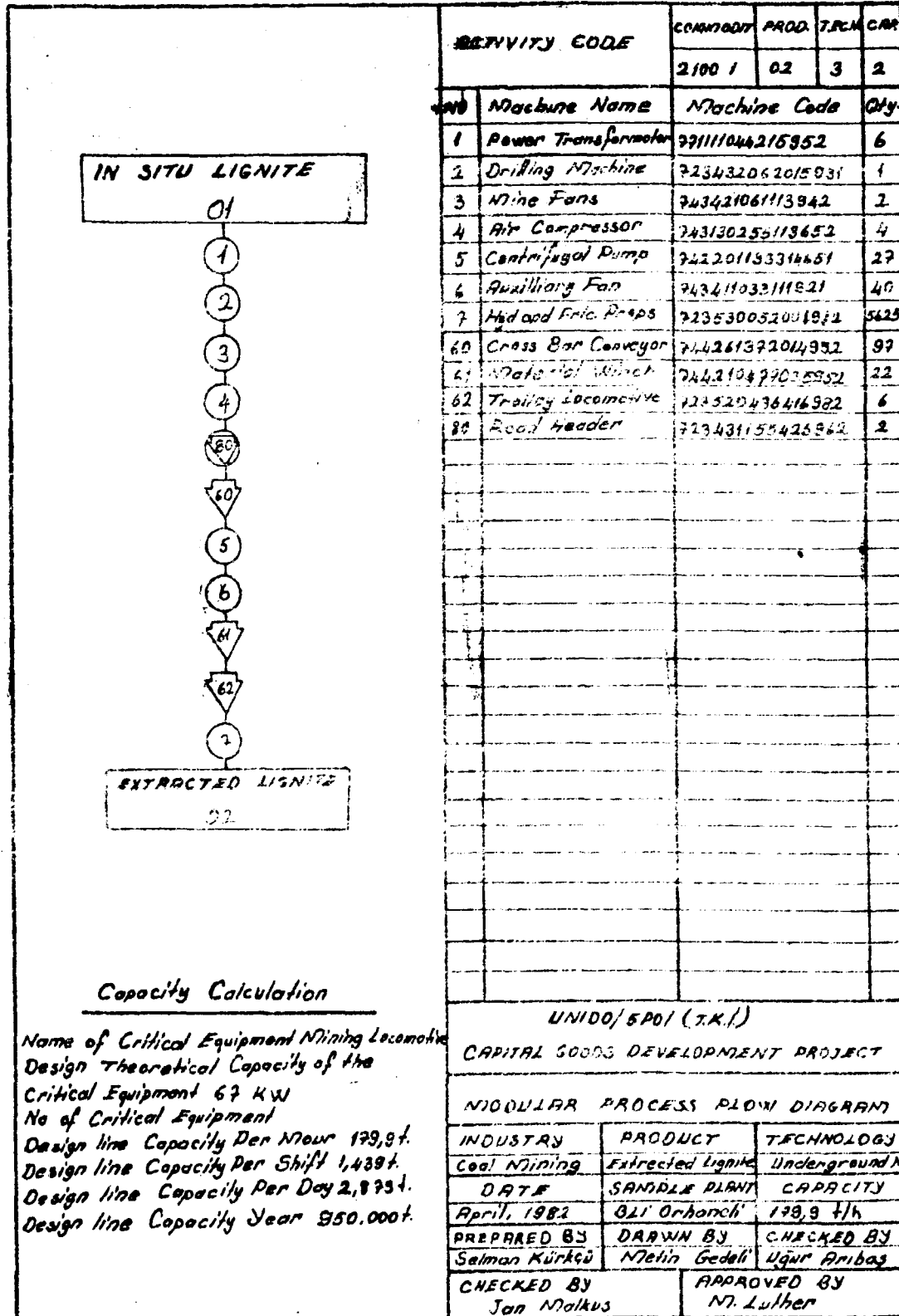
Capacity Calculation

Name of Critical Equipment	Electric Excavator
Design Theoretical Capacity of the Critical Equipment	120.4 t/h
No of Critical Equipment	4
Design Line Capacity Per Hour	120.4 t/h
Design " " Per Shift	722.2 t
" " " Per Day	2.167 t
" " " Per Year	650.000 t

ACTIVITY CODES	COMMODITY	PROD	TECH	GA
	2100 1	02	1	1
NO	Machine Name	Machine Code	Qty	
1	Drilling Machine	223482060015931	1	
2	Singl Hole Drill No.	223430162624962	5	
3	Electric Excavator	223425065829982	4	
4	Wheel Loader	223420052515952	2	
5	Dragline	223423099953982	1	
6	Bulldozer	223410066024822	2	
7	Motor Grader	223411049012992	3	
8	Centrifugal Pump	222201139344632	4	
9	Generator	222201139344632	2	
10	Transformer	222201139344632	1	
11	Mobile Crane	222201139344632	1	
12	Mobile Crane	222201139344632	1	
13	Mobile Crane	222201139344632	1	
14	Mobile Crane	222201139344632	1	
15	Mobile Crane	222201139344632	1	
16	Mobile Crane	222201139344632	1	
17	Mobile Crane	222201139344632	1	
18	Mobile Crane	222201139344632	1	
19	Mobile Crane	222201139344632	1	
20	Mobile Crane	222201139344632	1	
21	Mobile Crane	222201139344632	1	

UMDC/MDP/(T.R.I.)
CAPITAL GOOD DEVELOPMENT PROJECT

MODULAR PROCESS FLOW DIAGRAM		
INDUSTRY	PRODUCT	TECHNOLOGY
Coal Mining	Extracted Lign	Open Pit m.
DATE	SAMPLE PLANT	CAPACITY
April, 1982	BI Orbanelli	120.4 t/h
PREPARED BY	DRAWN BY	CHECKED BY
Selman Kırkgü	Matin Gedali	Ugur Aribas
CHECKED BY	APPROVED BY	
Jan Nalkus	M. Luther	



UNDO/SPO (T.K.I.)
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

PLANT SURVEY FORM

Sample Plant: BLJ-ORHANELI

PRODUCTION ACTIVITY Code: 210080211

Sr. No.	Mark/Model	Basic Machine Nomenclature	Major Specific. (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac. Characteristic-1	Manufac. Characteristic-2	Manufac. Characteristic-3	Origin	Qty	Purchase Cost (in Thousands) And Currency		Constant 1980 Year Cost US\$ (in Thousand)		Year of Purchase and	SITC Code (For Computer)		
							WT (Tons)	MATL	WT (Tons)			WT (Tons)	Unit	Total	Unit		Total	Remarks	1
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
1		Drilling Machine	500mm	250 m	-	Rubber-Tired	60	Steel Fab.	4	Turk	1	\$ 500	\$ 500	\$ 500	\$ 500	1980	72343	20	62015931
2		Blast Hole Drill Machine	228mm	20 m	175 KW	Crawler	31	Steel Fab.	15	Imp.	5	\$ 450	\$	\$ 450		1980	72343	01	6762962
3		Electric Excavator	12 m ³	9 m	500 KW	Crawler	600	Steel Fab.	60	Imp.	4	\$1500		\$1500		1980	72342	50	65829982
4		Wheel Loader	8 m ³	5 m	250 KW	Rubber-Tired	50	Steel Fab.	10	Imp.	2	\$ 470		\$ 470		1980	72342	00	52515952
5		Dragline	45 m ³	15 m	700 KW	Walking	500	Steel Fab.	60	Imp.	1	\$18000	\$18000	\$18000	\$18000	1980	72342	10	99939983
6		Bulldozer	300 HP	27Km/h	-	Crawler	40	Steel Fab.	9	Imp.	7	\$ 200	\$ 1400	\$ 200	\$ 1400	1980	72341	00	66024942
7		Motor Grader	200 HP	40Km/h	-	Rubber-Tired	8	Steel Fab.	1	Imp.	3	\$ 150	\$ 450	\$ 150	\$ 450	1980	72341	10	47012922
8		Centrifugal Pump	65 m ³ /h	75 m	Cold Dirty Muddy	Horizontal	30	Carbon Steel Casting	4	Imp.	4	\$ 7	\$ 28	\$ 7	\$ 28	1980	74220	11	33314632
9		Backhoe Excavator	1 m ³	7 m	175 KW	Rubber-Tired	20	Steel Fab.	4	Turk.	2	\$ 120	\$ 240	\$ 120	\$ 240	1980	72342	20	23213931
10		Truck Trailer	25 tons	80Km/h	-	-	20	Steel Fab.	4	Turk	1	\$ 60	\$ 60	\$ 60	\$ 60	1980	74411	03	37003931
11		Dump Truck	85 tons	80Km/h	-	-	100	Steel Fab.	30	Imp.	18	\$ 350		\$ 350		1980	74411	20	67006972
12		Bottom Dump Truck	120tons	80 KM/h	-	-	100	Steel Fab.	30	Imp.	10	\$ 450	\$ 4500	\$ 450	\$ 4500	1980	74411	20	67006972
13		AM/FO Truck	10 tons	70 Km/h	-	-	25	Steel Fab.	3	Turk	2	\$ 60	\$ 60	\$ 60	\$ 60	1980	74411	10	65004931
14		Mobile Crane	75 tons	60 m	Single Point	Others	40	Steel Fab.	15	Imp.	1	\$ 50	\$ 50	\$ 50	\$ 50	1980	74422	21	56194962

PLANT SURVEY FORM

UNIDO/SPO (T.K.I.)
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

Sample Plant: BL1-DURANELI

PRODUCTION ACTIVITY Code: 210010232

Sr. No.	Mark/Model	Basic Machine Nomenclature	Major Specific (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac.	Manufac.	Manufac.	Origin	Qty	Purchase Cost (in thousands) And Currency		Constant 1980 Year Cost US\$ (in thousand)		Year of Purchase and	SITC Code (Per Computer)								
							Characteristic-1	Characteristic-2	Characteristic-3			Unit	Total	Unit	Total		1	2	3	4	5	6	7	8	9
							WT (Tons)	MATL	WT (Tons)			13	14	15	16		17	18	19	20	21	22	23	24	25
1		Power Transformer	16 MVA	15 KV	Three Phase	Oil	50	Steel Fab.	13	Imp.	6	L 12	L 72	L 12	L 72	1980	77111	10	44215952						
2		Drilling Mach.	500 mm	150 m	-	Rubber Tired	90	Steel Fab.	4	Turk	1	\$ 500	\$ 500	\$ 500	\$ 500	1980	72343	27	62015931						
3		Mine Fans	10000 m ³ /hr	1000 mm	Air	Straight Blades	10	Steel Fab.	5	Imp.	2	\$ 160	\$ 320	\$ 160	\$ 320	1980	74342	10	62111942						
4		Air Compressor	100 m ³ /hr	1000 mm	Air	Horizontal	10	Carbon Steel Cast	10	Imp.	4	\$ 350	\$ 1560	\$ 390	\$ 1560	1980	74313	02	55113552						
5		Centrifugal Pump	80 m ³ /hr	500 mm	1000 mm	Horizontal	15	Carbon Steel Cast	10	Turk	27	\$ 20	\$ 540	\$ 20	\$ 540	1980	74220	11	33114671						
6		Auxiliary Fan	80 m ³ /hr	250 mm	Air	Forward Draught	10	Steel Fab.	1	Turk	4	L 2	L 80	L 2	L 80	1980	74341	10	33111941						
7		Hydraulic and Frictional Pads	30 ton	-	-	-	1000	Steel Fab.	1000	Imp.	500	\$ 0.189	\$ 1063	\$ 0.189	\$ 1063	1980	72353	00	50001912						
80		Cross Bar Conveyor	600 m	500 mm	-	Bulk Material	30	Steel Fab.	13	Imp.	97	\$ 153	\$ 14841	\$ 153	\$ 14841	1980	74426	13	72014952						
81		Material Hoist	100 ton	15 m	-	Mechanical	50	Steel Fab.	10	Imp.	27	\$ 400	\$ 8800	\$ 400	\$ 8800	1980	74421	04	77025952						
82		Trolley Locomotive	47 KW	1000 N	1000 mm	Trolley	100	Steel Fab.	50	Imp.	6	L 100	L 600	L 100	L 600	1980	72352	04	36416982						
80		Road Header	7m/h	500 mm	100 KW	Multi-Stage	50	Steel Fab.	15	Imp.	2	L 180	L 360	L 180	L 360	1980	72343	11	55425962						

UNDD/SPO (T.K.T.)
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

PLANT SURVEY FORM

Sample Plant:

BLI-Orhaneli

PRODUCTION ACTIVITY Code: 210010512

Sr. No.	Mark/Model	Basic Machine Nomenclature	Major Specific. (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac. Characteristic-1	Manufac. Characteristic-2	Manufac. Characteristic-3	Origin	Qty	Purchase Cost (in Thousands) And Currency		Constant 1980 Year Cost US\$ (in Thousand)		Year of Purchase and	SITC Code (For Computer)			
							WT (Tons)	MATL	WT (Tons)			Unit	Total	Unit	Total		Remarks	7	8	9
40		Coal Loading Bunker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41		Waste Bunker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60		Belt Conveyor	300 t/h	300 mm	-	Bulk Material	100	Steel Fab.	25	Imp.	4	\$ 123	\$ 492	\$ 123	\$ 492	1980	74426	02	72016972	
61		Belt Conveyor	100 t/h	500 mm	-	Bulk Material	100	Steel Fab.	25	Imp.	3	\$ 132	\$ 396	\$ 132	\$ 396	1980	74426	01	32016972	

UNIDO/SPO (T.K.I.)
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

PLANT SURVEY FORM

Sample Plant: çii-Çan

PRODUCTION ACTIVITY Code: 210010215

Sr. No.	Mark/Model	Basic Machine Nomenclature	Major Specific. (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac. Characteristic-1	Manufac. Characteristic-2	Manufac. Characteristic-3	Origin	Qty	Purchase Cost (in Thousands) And Currency		Constant 1980 Year Cost US\$ (in Thousands)		Year of Purchase and	SITC Code (For Computer)		
							WT (Tons)	MATL	WT (Tons)			Unit	Total	Unit	Total		Remarks	1	2
1		Drilling Mach.	500 mm	250 m	-	Rubber-Tired	60	Steel Fab.	4	Turk	2	\$ 500	\$ 1000	\$ 500	\$ 1000	1980	72343	20	62015931
2		Blast Hole Drill Machine	228 mm	20 m	175 KW	Crawler	30	Steel Fab.	15	Imp.	16	\$ 450	\$ 7200	\$ 450	\$ 7200	1980	72343	01	67624962
3		Electric Excavator	12 m ³	9 m	300 KW	Crawler	600	Steel Fab.	60	Imp.	15	\$ 1500	\$22500	\$ 1500	\$22500	1980	72342	50	65829982
4		Wheel Loader	8 m ³	5 m	250 KW	Rubber-Tired	50	Steel Fab.	10	Imp.	6	\$ 470	\$ 2820	\$ 470	\$ 2820	1980	72342	00	52515952
5		Dragline	45 m ³	15 m	700 KW	Walking	600	Steel Fab.	60	Imp.	1	\$18000	\$18000	\$18000	\$18000	1980	72342	30	99939983
6		Bulldozer	300 HP	27 Km/h	-	Crawler	40	Steel Fab.	9	Imp.	34	\$ 200	\$ 6800	\$ 200	\$ 6800	1980	72341	00	66024942
7		Motor Grader	200 HP	40 Km/h	-	Rubber-Tired	8	Steel Fab.	1	Imp.	10	\$ 150	\$ 1500	\$ 150	\$ 1500	1980	72341	10	47012922
8		Centrifugal Pump	65 m ³ /h	75 m	Cold Dirty Muddy	Horizontal	30	Carbon steel cast.	4	Imp.	6	\$ 7	\$ 42	\$ 7	\$ 42	1980	74220	11	33314632
9		Backhoe Excavator	1 m ³	7 m	125 KW	Rubber-Tired	20	Steel Fab.	4	Turk	2	\$ 120	\$ 240	\$ 120	\$ 240	1980	72342	20	23213931
60		Truck Trailer	25 ton	80 Km/h	-	-	20	Steel Fab.	4	Turk	1	\$ 60	\$ 60	\$ 60	\$ 60	1980	74411	03	37003931
61		Dump Truck	85 ton	80 Km/h	-	-	100	Steel Fab.	30	Imp.	92	\$ 350	\$ 32200	\$ 350	\$32200	1980	74411	20	67006972
62		Bottom Dump Truck	120 ton	80 Km/h	-	-	100	Steel Fab.	30	Imp.	12	\$ 450	\$5400	\$ 450	\$ 5400	1980	74411	20	67006972
80		AN/PO Truck	10 ton	70 Km/h	-	-	25	Steel Fab.	3	Turk	4	\$ 60	\$ 240	\$ 60	\$ 240	1980	74411	10	65004931
81		Mobile Crane	75 ton	60 m	Single Hoist	Others	40	Steel Fab.	15	Imp.	1	\$ 50	\$ 50	\$ 50	\$ 50	1980	74422	21	56194962

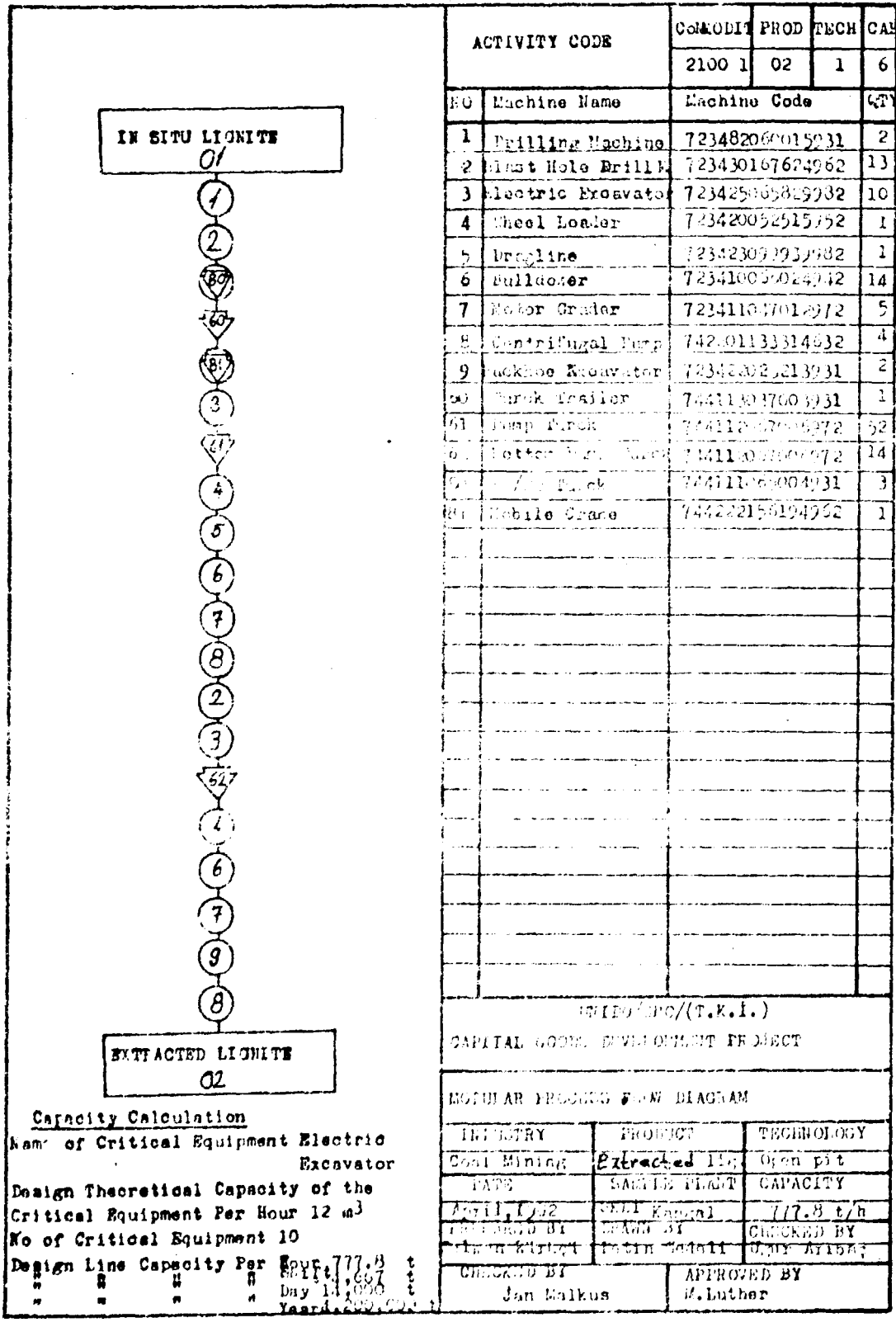
UNIDO/SPO (T.F.I.)
CAPITAL GOODS DEVELOPMENT PROJECT TURKEY

PLANT SURVEY FORM

Sample Plant: Çli-Ca-

PRODUCTION ACTIVITY Code: 21/010615

Sr. No.	Mark/Model	Basic Machine Nomenclature	Major Specific (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac. Characteristic-1	Manufac. Characteristic-2	Manufac. Characteristic-3	Origin	Qty	Purchase Cost (in Thousands) And Currency		Constant 1980 Year Cost US\$ (in Thousand)		Year of Purchase and	SITC Code (For Computer)			
							WT (Tons)	MATL	WT (Tons)			Unit	Total	Unit	Total		Remarks	2	3	5
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
40		Coal Loading Bunker	150 m ³	5m	7500	Rectangular/cubic	20	Stainless steel	20mm	Turk	1	\$ 24	\$ 24	\$ 24	\$ 24	1980	69211	02	23313621	
41		Waste Bunker	100 m ³	7.5 m	7500	Rectangular/cubic	20	Stainless steel	20mm	Turk	1	\$ 24	\$ 24	\$ 24	\$ 24	1980	69211	02	23313621	
60		Belt Conveyor	500 t/h	500mm	-	Hulk Material	100	Steel Fab.	25	Imp.	1	\$ 123	\$ 123	\$ 123	\$ 123	1980	74426	02	72016972	
61		Belt Conveyor	100 t/h	590 mm	-	Hulk Material	100	Steel Fab.	25	Imp.	2	\$ 123	\$ 246	\$ 123	\$ 246	1980	74426	01	32016972	



PLANT SURVEY FORM

UNIDO/SPO (T.K.I.)
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

Sample Plant: Sivas-Kangal

PRODUCTION ACTIVITY Code: 210010216

Sr. No.	Mark/Model	Basic Machine Nomenclature	Major Specific (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac. Characteristic-1	Manufac. Characteristic-2	Manufac. Characteristic-3	Origin	Qty	Purchase Cost (in Thousands) And Currency		Constant 1980 Year Cost US\$ (in Thousand)		Year of Purchase and	SITC Code (For Computer)									
							WT (Tons)	MATL	WT (Tons)			Unit	Total	Unit	Total		Remarks	1	2	3	4	5	6	7	8	9
1		Drillina Machine	500mm	250 m	-	Rubber-Tired	60	Steel Fab.	4	Turk	2	\$ 500	\$ 1000	\$ 500	\$ 1000	1980	72343	20	62015931							
2		Blast Hole Drill Machine	228mm	20 m	175 KW	Crawler	30	Steel Fab.	15	Imp.	13	\$ 450	\$ 5850	\$ 450	\$ 5850	1980	72343	01	67624962							
3		Electric Excavator	12 m ³	9 m	500 KW	Crawler	600	Steel Fab.	60	Imp.	10	\$1300	\$10300	\$ 1500	\$ 10300	1980	72342	50	65829982							
4		Wheel loader	8 m ³	5 m	250 KW	Rubber-Tired	50	Steel Fab.	10	Imp.	1	\$ 470	\$ 470	\$ 470	\$ 470	1980	72342	00	52515952							
5		Draeline	45 m ³	15 m	700 KW	Walking	600	Steel Fab.	60	Imp.	1	\$18000	\$ 18000	\$ 18000	\$18000	1980	72342	30	99939983							
6		Bulldozer	300 HP	27km/h	-	Crawler	40	Steel Fab.	9	Imp.	14	\$ 200	\$ 2800	\$ 200	\$ 2800	1980	72341	00	66024942							
7		Motor Grader	200 HP	40Km/h	-	Rubber-Tired	8	Steel Fab.	1	Imp.	5	\$ 150	\$ 750	\$ 150	\$ 750	1980	72341	10	47012922							
8		Centrifugal Pump	65m ³ /h	75 m	Cold Dirty Muddy	Horizon-tal	30	Carbon Steel Cast.	4	Imp.	4	\$ 7	\$ 28	\$ 7	\$ 28	1980	74220	11	33314632							
9		Backhoe Excavator	1 m ³	7 m	125 KW	Rubber-Tired	20	Steel Fab.	4	Turk	2	\$ 120	\$ 240	\$ 120	\$ 240	1980	72342	20	23213931							
80		Truck Trailer	25 tons	80 Km/h	-	-	20	Steel Fab.	4	Turk	1	\$ 60	\$ 60	\$ 60	\$ 60	1980	74411	03	37003931							
61		Dump Truck	85 tons	80 Km/h	-	-	100	Steel Fab.	30	Imp.	52	\$ 350	\$ 18200	\$ 350	\$ 18200	1980	74411	20	67006972							
62		Bottom Dump Truck	120 tons	80 Km/h	-	-	100	Steel Fab.	36	Imp.	14	\$ 450	\$ 6300	\$ 450	\$ 6300	1980	74411	20	67006972							
80		AN/PO Truck	10 tons	70 Km/h	-	-	25	Steel Fab.	3	Turk	3	\$ 60	\$ 180	\$ 60	\$ 180	1980	74411	10	65004931							
81		Mobile Crane	75 tons	60 m	Single hoist	Others	40	Steel Fab.	15	Imp.	1	\$ 50	\$ 50	\$ 50	\$ 50	1980	74422	21	56194962							

UNIDOC/SPO (T.R.I.)
CAPITAL GOODS DEVELOPMENT PROGRAM

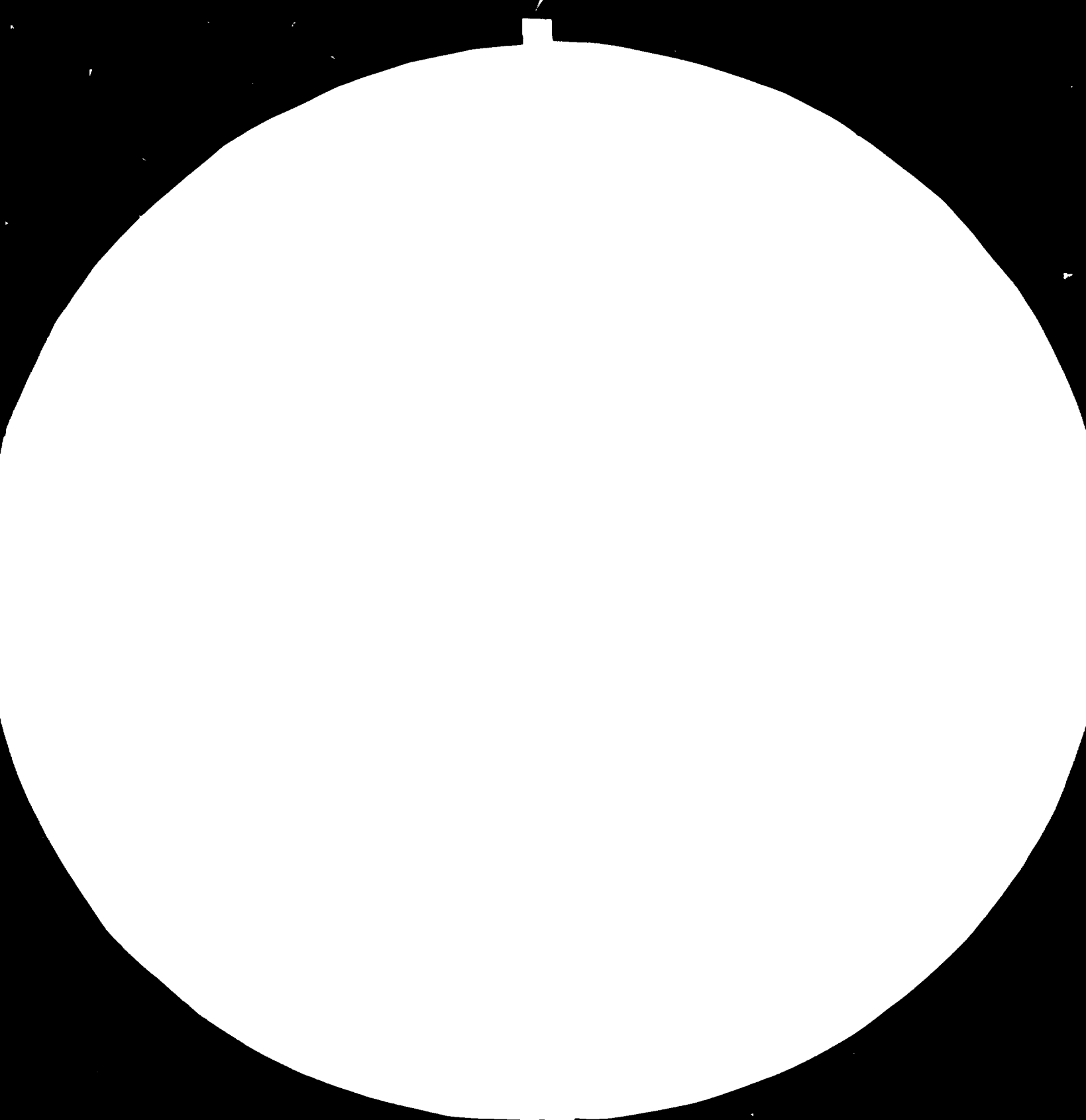
PLANT SURVEY FORM

Sample Plant: SIKAR KANAKI

PRODUCTION ACTIVITY Code: 220016618

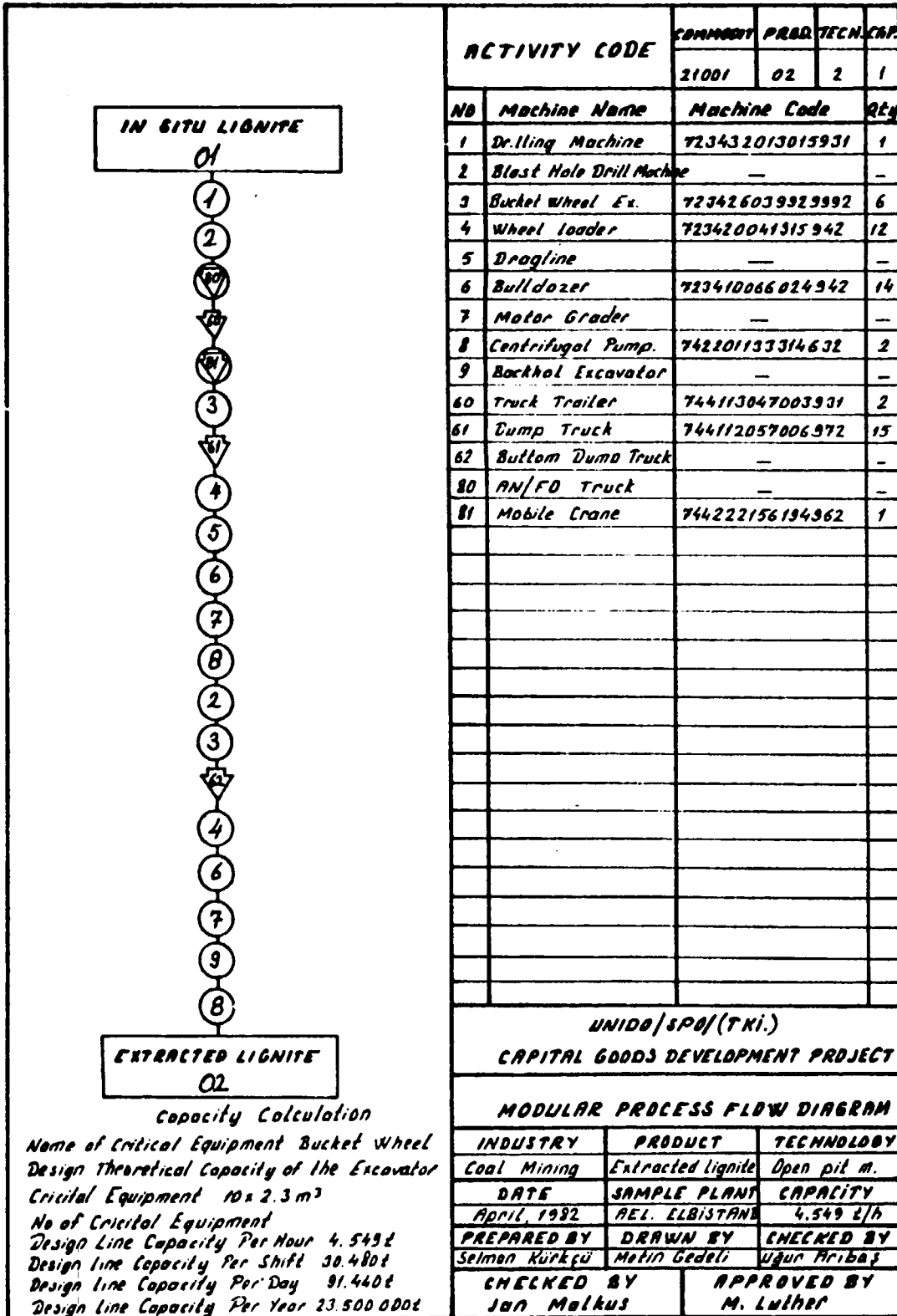
Sr. No.	Mark/Model	Basic Machine Nomenclature	Major Specific Features	Major Specifications	Type	Capacity	Manufac. (Year)	Material	Characteristics	Weight	Purchase Cost		Constant 1980		Year of Purchase and	SITC Code (Per Computer)				
											Unit	Total	Unit	Total		1	2	3	4	5
40		Coal Loading Bucket	150 H.P.	5 m	Power driven	1000	1980	Indust. steel	20mm	1000	2.24	2.24	2.24	2.24	1980	69211	02	22013621		
41		Waste Sweeper	100 H.P.	7.5 m	Power driven	1000	1980	Steel	20mm	1000	2.24	2.24	2.24	2.24	1980	69211	02	23313621		
42		Belt Conveyor	300 H.P.	50 m	Material	1000	1980	Steel	20mm	1000	2.123	2.496	2.123	2.496	1980	74426	02	72016972		
43		Belt Conveyor	100 H.P.	50 m	Material	1000	1980	Steel	20mm	1000	2.123	2.496	2.123	2.496	1980	74426	01	32016972		

25 Q 5 15





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)



IN SITU LIGNITE
01



EXTRACTED LIGNITE
02

Capacity Calculation
 Name of Critical Equipment Bucket Wheel
 Design Theoretical Capacity of the Excavator
 Critical Equipment 10 x 2.3 m³
 No of Critical Equipment
 Design Line Capacity Per Hour 4.549 t
 Design line Capacity Per Shift 30.480 t
 Design line Capacity Per Day 91.440 t
 Design Line Capacity Per Year 23.500.000 t

UNDO/SPO (T.K.L.)
CAPITAL GOODS DEVELOPMENT PROJECT IN TURKEY

PLANT SURVEY FORM

Sample Plant: AEL Elbistan 5

PRODUCTION ACTIVITY Code: 210010221

Sr. No.	Mark/Model	Basic Machine Nomenclature	Major Specific (Capacity)	Major Spec-1 (Optional)	Major Spec-2 (Optional)	Type (Description)	Manufac. Characteristic-1	Manufac. Characteristic-2	Manufac. Characteristic-3	Origin	Qty	Purchase Cost (in Thousands) And Currency		Constant 1980 Year Cost US\$ (in Thousand)		Year of Purchase and	SITC Code (For Computer)		
							WT (Tons)	MATL	WT (Tons)			Unit	Total	Unit	Total		Remarks	17	18
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
1		Drilling Machine	100mm	150 m	-	Rubber Tired	60	Steel Fab.	4	Turk	1	\$ 500	\$ 1000	\$ 500	\$ 1000	1980	72343	20	13015031
2		Blast Hole Drill Machine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3		Bucket Wheel Excavator	2,3m ³	42.0 m	650 KW	Crawler	600	Steel Fab.	100	Imp.	6	1800000 TL	0800000 TL	1357440 \$	144640 \$	1980	72342	60	1920992
4		Wheel loader	5 m ³	2 m	150 KW	Rubber Tired	50	Steel Fab.	10	Imp.	12	\$ 470	\$ 5640	\$ 470	\$ 5640	1980	72342	00	41315942
5		Draeline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6		Bulldozer	300HP	27km/h	-	Crawler	40	Steel Fab.	9	Imp.	14	\$ 200	\$ 2800	\$ 200	\$ 2800	1980	72341	00	6624042
7		Motor Grader	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8		Centrifugal Pump	65 m ³ h	75 m	Cold Dirty Muddy	Horizontal	3	Carbon Steel Cast.	0.4	Imp.	2	\$ 7	\$ 14	\$ 7	\$ 14	1980	74220	11	33311612
9		Backhoe Excavator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60		Truck Trailer	35 t	80 km/h	-	-	20	Steel Fab.	4	Turk	2	\$ 60	\$ 120	\$ 60	\$ 120	1980	74411	30	47003031
61		Dump Truck	60 t	80 km/h	-	-	100	Steel Fab.	30	Imp.	15	\$ 350	\$ 5250	\$ 350	\$ 5250	1980	74411	20	57006972
62		Bottom Dump Truck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80		AN/PO Truck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81		Mobile Crane	75 t	60 m	Single Hoist	Others	40	Steel Fab.	15	Imp.	1	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50	74422	21	56194962

-C7-
 COMMODITY CODE : 2170 1
 EIGHTH BASIS 1987-1990 YEARS
 PAGE: 1

JHDC/SFC JARISHI COAL WORKS (T.K.-II)
 CAPITAL GOODS DEVELOPMENT PROJECT
 SPECIFIC REQUIREMENTS FOR THE RFA PLANT
 PLANT NAME : S.L.I. ISIKLAR/DANA
 PLANT CAPACITY : 255 TPD
 LOCATION : ISIKLAR/ISMAZIMIR
 ANTICIPATED DATE OF COMMISSIONING : 1997
 UNIT : METRIC TONS

SITC CODE	BASIC MACHINE NAME	QTY	UNIT WEIGHT	1981	1982	1983	1987	1988	1989	1990	TOT. WT
61211	COAL LOADING CRANE	3	20.0	60.0							60.0
52211	WASTE CRIBBER	2	20.0	40.0							40.0
TOTAL = 100.0											

GRAND TOTAL = 100.0

UNIT/CSPC TURKISH COAL WORKS (T.C.M.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.O.L. ISIKIAR/SOMA
 PLANT CAPACITY : 465 TPH
 LOCATION : ISIKIAR/SOMA/TURKEY
 ANTICIPATED DATE OF COMMISSIONING : 1987
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QTY	UNIT WEIGHT	1981	1982	1983-1987	1988	1989	1990	TOT. WT
72341	00602442 BULLDOZER	15	40.0	600.0						600.0
72342	10470242 MOTOR GRADER	7	8.0	56.0						56.0
72342	00551542 WHEEL LOADER	1	50.0	50.0						50.0
72342	20321341 BAG HOPE EXCAVATOR	1	70.0	70.0						70.0
72342	50559242 ELECTRIC EXCAVATOR	5	400.0	2000.0						2000.0
72342	01676242 BLEAST WPLE DRILL MACHINE	5	30.0	150.0						150.0
72342	11552342 ROAD GRADER	2	50.0	100.0						100.0
72342	20501541 DRILLING MACHINE	1	60.0	60.0						60.0
72342	20520141 DRILLING MACHINE	1	60.0	60.0						60.0
72342	04264442 RIGID LOCOMOTIVE	3	100.0	300.0						300.0
72342	05503142 MID AND ERIC. PROP	2000	0.025	50.0						50.0
7291	01001472 VIBRATORY GRIZZLY	2	100.0	200.0						200.0
7292	02041472 IMPACT CRUSHER	2	50.0	100.0						100.0
7420	11131442 CENTRIFUGAL PUMP	5	30.0	150.0						150.0
7420	112231431 CENTRIFUGAL PUMP	5	35.0	175.0						175.0
7421	02551142 AIR COMPRESSOR	2	10.0	20.0						20.0
7431	10311121 AUXILIARY FAN	10	45.0	450.0						450.0
7432	10511342 FINE FAN	2	10.0	20.0						20.0
7441	10550441 ANFO TRUCK	1	25.0	25.0						25.0
7441	00570472 BOTTOM DUMP TRUCK	6	100.0	600.0						600.0
7441	20670372 DUMP TRUCK	24	100.0	2400.0						2400.0
7441	03703441 TRUCK TRAILER	1	20.0	20.0						20.0
7442	04770342 MATERIAL WINCH	2	50.0	100.0						100.0
7442	21561942 MOBILE CRANE	1	40.0	40.0						40.0
7442	01201642 BELT CONVEYOR	2	100.0	200.0						200.0

UNICC/SFC TURKISH COAL WORKS (T.Y.L.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.L.I. ISIKLAR/SOMA
 PLANT CAPACITY : 465 TPH
 LOCATION : ISIKLAR/SOMA/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1997
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 2100

SITC CODE	BASIC MACHINE NAME	QT	UNIT WEIGHT	1981
*****	*****	****	*****	*****
74422	CC72015472 BELT CONVEYOR	2	100.0	200.0
74426	1172016472 STEEL PLATE CONVEYOR	1	100.0	100.0
74426	1372014932 GRASS BAR CONVEYOR	8	30.0	240.0
77111	1044213732 POWER TRANSFORMTOR	3	50.0	150.0

T O T A L S

1991 9.036.0
 1992
 1993
 1984
 1985
 1986
 1997
 1998
 1989
 1990

GRAND TOTAL= 9.036.0

1982	1983	1987	1988	1989	1990	TOT.WF
*****	*****		*****	*****	*****	*****
						700.0
						100.0
						240.0
						150.0

UNIDO/SFC TURKISH COAL WORKS (T.K.W.)
CAPITAL GOODS DEVELOPMENT PROJECT
FABRICATED REQUIREMENTS FOR THE NEW PLANT
PLANT NAME : S.L.T. DENIS
PLANT CAPACITY : 370.4 TPH
LOCATION : DENIZLIZMIR
ANTICIPATED DATE OF COMMISSIONING : 1997
UNIT WEIGHTS IN TONS

COMMODITY CODE : 2100 1

SITE CODE	BASIC MACHINE NAME	QT	UNIT WEIGHT	1981
*****	*****	****	*****	*****
69211 0222313521	COAL LOADING BUNKER	3	20.0	60.0
59211 0222313521	WASTE BUNKER	2	20.0	40.0

T O T A L S
1981 100.0
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
GRAND TOTAL= 100.0

1982	1983-1987	1988	1989 1990	TOT.WE
*****	*****	*****	*****	*****
				60.0
				40.0

UNICORP TURKISH COAL WORKS (T.K.O.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.L.I. BENS
 PLANT CAPACITY : 370.4 TPA
 LOCATION : JERU/12MR
 ANTICIPATED DATE OF COMMISSIONING : 1987
 UNIT WEIGHTS IN TONS

SITE CODE	BASIC MACHINE NAME	QTY	UNIT WEIGHT	1981	1982	1983	1987	1988	1989	1990	TOT. WT.
72341	006520372 BULLDOZER	15	40.0	600.0							600.0
72341	104701372 MOTOR GRADER	7	8.0	56.0							56.0
72342	005251372 WHEEL LOADER	1	50.0	50.0							50.0
72342	000321372 BACKHOPE EXCAVATOR	1	20.0	20.0							20.0
72342	006520372 ELECTRIC EXCAVATOR	4	600.0	2400.0							2400.0
72342	015720372 BLAST HOLE DRILL MACHINE	3	30.0	150.0							150.0
72343	006201372 DRILLING MACHINE	1	60.0	60.0							60.0
72331	010520372 VIBRATORY GRIFFLY	1	100.0	100.0							100.0
72322	020413372 IMPACT CRUSHER	2	50.0	100.0							100.0
74220	111313372 CENTRIFUGAL PUMP	5	30.0	150.0							150.0
74411	104520372 ANFO TRUCK	1	25.0	25.0							25.0
74411	006703372 BOTTOM DUMP TRUCK	6	100.0	600.0							600.0
74411	006703372 DUMP TRUCK	24	100.0	2400.0							2400.0
74411	007033372 TRUCK TRAILER	1	20.0	20.0							20.0
74422	215413372 TRAILER CRANE	1	40.0	40.0							40.0
74422	011201372 BELT CONVEYOR	2	100.0	200.0							200.0
74422	007033372 BELT CONVEYOR	2	100.0	200.0							200.0
74425	117201372 STEEL PLATE CONVEYOR	1	100.0	100.0							100.0

TOTAL 5
 1581 7,371.0
 1582
 1583
 1584
 1585
 1586
 1587
 1588
 1589
 1590
 GRAND TOTAL = 7,371.0

UNDEVELOPED PLANTING AREA (T.M.K.)		COMMODITY CODE : 2170 1		HEIGHT BASIS 1987-1990 YEARS				PAGE:	
CAPITAL DEVELOPMENT PROJECT				1982	1983 1987	1981	1980 1980	1987	1987
FABRICATED REQUIREMENTS FOR THE NEW PLANT				*****	*****	*****	*****	*****	*****
PLANT NAME : POLYESTER				UNIT	HEIGHT				
PLANT CAPACITY : 7775 TPI				*****	*****				
LOCATION : BANGALORE				2	20.0				
ANTICIPATED DATE OF COMMISSIONING : 1986				2	20.0				
UNIT ACQUIRED IN 1985									
SITE CODE	BASIC MACHINE NAME	UNIT	HEIGHT	1991	1991	1991	1990 1990	TOTAL	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	2	20.0	40.0				40.0	
*****	*****	2	20.0	40.0				40.0	
TOTAL = 80.0									

COMMUNITY CODE : 2100 1

UTIC/SFC TUNISH COM. WORKS (T.P. 11)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.I. SEMBOY
 PLANT CAPACITY : 777.8 TON
 LOCATION : SEMBOY/IZMER
 ANTICIPATED DATE OF COMMISSIONING : 1986
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QTY	UNIT WEIGHT	1981	1982	1983-1987	1988	1989	1990	TOT.MF
72341	CCCC625542 BULLDOZER	14	40.0	560.0						560.0
72341	1047012372 MOTOR GRADER	4	9.0	48.0						48.0
72342	CC52553322 WHEEL TRADER	1	50.0	50.0						50.0
72342	2023213331 BACKHOPE EXCAVATOR	1	20.0	20.0						20.0
72342	3055333322 DRAGLINE	2	600.0	1200.0						1,200.0
72342	EC65923322 ELECTRIC EXCAVATOR	6	670.0	4020.0						4,020.0
72343	0157623322 BLAST WOLF DRILL MACHINE	6	30.0	180.0						180.0
72343	CC52013321 DRILLING MACHINE	1	60.0	60.0						60.0
72831	C165013372 VIBRATORY GRITZLY	2	100.0	200.0						200.0
72832	C264513332 IMPACT CRUSHER	2	50.0	100.0						100.0
74220	113313332 CENTRIFUGAL PUMP	15	30.0	450.0						450.0
74411	2057036372 BOTTOM DUMP TRUCK	15	100.0	1500.0						1,500.0
74411	2057036372 JUMP TRUCK	22	100.0	2200.0						2,200.0
74411	3037033331 TRUCK TRAILER	1	20.0	20.0						20.0
74422	215519332 MOBILE CRANE	1	40.0	40.0						40.0
74426	C132015372 BELT CONVEYOR	2	100.0	200.0						200.0
74426	C272015372 BELT CONVEYOR	2	100.0	200.0						200.0
74425	1172015372 STEEL PLATE CONVEYOR	2	100.0	200.0						200.0

T C T A L S
 1981 10,928.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL = 10,928.0

UNIDC/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.L.I. BAGYALA
 PLANT CAPACITY : 342.5 TON
 LOCATION : JASYALA/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 2100 1

SITC CODE	BASIC MACHINE NAME	QT	UNIT WEIGHT	1981
*****	*****	*****	*****	*****
59211 0222313021	COAL LOADING BUNKER	1	20.0	60.0
59211 0223313021	WASTE BUNKER	2	20.0	60.0

TOTALS

- 1981 100.0
- 1982
- 1983
- 1984
- 1985
- 1986
- 1987
- 1988
- 1989
- 1990

GRAND TOTAL = 100.0

WEIGHT BASIC 1981 1990 YEARS

PAGE: 1

1982	1983-1987	1988	1989 1990	TOT. WF
*****	*****	*****	*****	*****
				60.0
				40.0

COMMODITY CODE : 2130 1

UNIDC/SFC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.L. DAGVALA
 PLANT CAPACITY : 342.5 TON
 LOCATION : BAYPAZ/IZMIR
 ANTICIPATED DATE OF COMPLETION : 1995
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	J*	UNIT WEIGHT	1981	1982	1983-1987	1988	1989	1990	TOT. WF
72341	065024322 BULLDOZER	14	40.0	560.0						560.0
72341	104701272 MOTOR GRADER	4	8.0	32.0						32.0
72342	005051332 WHEEL TRADER	2	50.0	100.0						100.0
72342	202321331 JACOINE EXCAVATOR	1	20.0	20.0						20.0
72342	305553332 DRAGLINE	1	600.0	600.0						600.0
72342	504825332 ELECTRIC EXCAVATOR	5	600.0	3000.0						3000.0
72343	016762332 BLAST HOLE DRILL MACHINE	3	30.0	240.0						240.0
72349	206001331 DRILLING MACHINE	2	60.0	120.0						120.0
72831	016501372 VIBRATORY GRIZZLY	4	100.0	400.0						400.0
72832	025451332 IMPACT CRUSHER	2	50.0	100.0						100.0
74220	112331332 CENTRIFUGAL PUMP	6	30.0	180.0						180.0
74411	105501331 AN/FF TRUCK	1	25.0	25.0						25.0
74411	206700372 DUMP TRUCK	47	100.0	4700.0						4700.0
74411	303700331 TRUCK TRAILER	1	20.0	20.0						20.0
74425	012016372 BELT CONVEYOR	3	100.0	300.0						300.0
74425	022016372 BELT CONVEYOR	2	100.0	200.0						200.0
74425	112016372 STEEL PLATE CONVEYOR	4	100.0	400.0						400.0

TOTALS
 1981 10,997.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL = 10,997.0

UNJSC/SFC TURKISH COAL WORKS (T.C.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MECHANICAL REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : C.O.I. YATASAN
 PLANT CAPACITY : 600.1 TPD
 LOCATION : YATASAN/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QTY	UNIT WEIGHT	1981	1982	1983-1987	1988	1989	1990	TOTAL
72341	066024342 BULLDOZER	12	40.0	480.0						480.0
72341	1647012372 MOTOR GRADER	4	8.0	32.0						32.0
72342	052515332 WHEEL LOADER	2	50.0	100.0						100.0
72342	262321331 BACKHOE EXCAVATOR	1	20.0	20.0						20.0
72342	365933332 DRAGLINE	1	600.0	600.0						600.0
72342	566582932 ELECTRIC EXCAVATOR	4	600.0	2400.0						2400.0
72342	026762332 BLAST HOPE DRILL MACHINE	8	30.0	240.0						240.0
72342	266804531 DRILLING MACHINE	2	60.0	120.0						120.0
72831	0165013372 VIBRATORY GRIZZLY	2	100.0	200.0						200.0
72832	035461332 IMPACT CRUSHER	1	50.0	50.0						50.0
74220	113313332 CENTRIFUGAL PUMP	2	30.0	60.0						60.0
74411	165504331 AN/FO TRUCK	2	25.0	50.0						50.0
74411	266702372 JUMP TRUCK	38	100.0	3800.0						3800.0
74411	266702372 BOTTOM DUMP TRUCK	14	100.0	1400.0						1400.0
74411	363703331 TRUCK TRAILER	1	20.0	20.0						20.0
74422	215619332 MOBILE CRANE	1	40.0	40.0						40.0
74422	0122013372 BELT CONVEYOR	8	100.0	800.0						800.0
74422	0272016372 BELT CONVEYOR	6	100.0	600.0						600.0
74426	1172013372 STEEL PLATE CONVEYOR	2	100.0	200.0						200.0

TOTALS
 1981 11,212.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL= 11,212.0

-34-
 COUNTRY CODE : 2100 I
 FLIGHT BASIS 1981-1990 YEARS
 DATE: 1

AIRCRAFT IN 1989 COAL FIRMS (T.M.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 BIDDING RESULTS FOR THE NEW UNIT
 PLANT NAME : 3001.001
 PLANT CAPACITY : 3334 MW
 LOCATION : ALUMINA
 ANTICIPATED DATE OF COMPLETION : 1985
 UNIT WEIGHTS IN TONS

UNIT CODE	BASIC UNIT WEIGHT	UNIT WEIGHT	1981	1982	1983-1987	1981	1980	TOTAL
3001	3334	3334	60.0	60.0	60.0	60.0	60.0	60.0
3002	3334	3334	60.0	60.0	60.0	60.0	60.0	60.0

TOTAL TONS : 120.0
 1981
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL : 120.0

JN100/SFC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : J.L.L. KELES
 PLANT CAPACITY : 133.3 TPA
 LOCATION : KELES/JURSA
 ANTICIPATED DATE OF COMMISSIONING : 1995
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 2120

SITC CODE	BASIC MACHINE NAME	QTY	UNIT WEIGHT	1991
*****	*****	*****	*****	*****
72341 006402442	BULLDOZER	12	40.0	480.0
72341 104702342	MOTOR GRADER	4	9.0	36.0
72340 005251342	WHEEL LOADER	2	50.0	100.0
72340 207202342	BACKHOE EXCAVATOR	1	70.0	70.0
72342 508320342	ELECTRIC EXCAVATOR	8	500.0	4000.0
72342 016702442	BLAST HOLE DRILL MACHINE	4	30.0	120.0
72343 200202342	DRILLING MACHINE	1	60.0	60.0
72341 016002342	LABORATORY DRILLING	2	100.0	200.0
72342 036451342	IMPACT CRUSHER	2	50.0	100.0
74220 113331442	CENTRIFUGAL PUMP	4	30.0	120.0
74410 105000442	ARMED TRUCK	1	75.0	75.0
74411 006700342	BOTTOM DUMP TRUCK	11	100.0	1100.0
74411 004700342	DUMP TRUCK	57	100.0	5700.0
74411 007700342	TRUCK TRAILER	1	20.0	20.0
74422 219610442	MOBILE CRANE	1	40.0	40.0
74425 013201642	BELT CONVEYOR	2	100.0	200.0
74426 027201642	BELT CONVEYOR	3	100.0	300.0
74425 117201642	STEEL PLATE CONVEYOR	2	100.0	200.0

TOTALS
 1991 13,617.0
 1992
 1993
 1994
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL = 13,617.0

1987	1987 1997	1988	1989 1990	TOT.WF
*****	*****	*****	*****	*****
				480.0
				37.0
				100.0
				20.0
				4,800.0
				120.0
				60.0
				200.0
				100.0
				120.0
				25.0
				1,100.0
				5,700.0
				20.0
				40.0
				200.0
				300.0
				200.0

COMMODITY CODE : 2100 1

UNICOC/SPD TURKISH COAL WORKS (T.Y.O.)
CAPITAL GOODS DEVELOPMENT PROJECT
NACHARY REQUIREMENTS FOR THE NEW PLANT
PLANT NAME : J.L.L. ORMANLI
PLANT CAPACITY : 300.2 T/HR
LOCATION : CRAMLI/ORSU
ANTICIPATED DATE OF COMMISSIONING : 1985
UNIT HEIGHTS IN TONS

SITE CODE	BASIC MACHINE NAME	QT	UNIT WEIGHT	1981	1987	1989	1990	TOT. WF
72341	CC66024342 BULLDOZER	7	40.0	280.0				280.0
72341	1C47022372 MOTOR GRADER	3	8.0	24.0				24.0
72342	CC52513322 WHEEL LOADER	2	50.0	100.0				100.0
72342	2C23213331 BACHMPE EXCAVATOR	2	20.0	40.0				40.0
72342	2C55333322 DRAGLINE	1	500.0	500.0				500.0
72342	2C65233322 ELECTRIC EXCAVATOR	4	600.0	2400.0				2,400.0
72343	C157424342 BLAST HOLE DRILL MACHINE	5	30.0	150.0				150.0
72343	1153423462 ROAD PAVEMENTER	2	50.0	100.0				100.0
72343	2C67023331 DRILLING MACHINE	1	60.0	60.0				60.0
72343	2C68133322 DRILLING MACHINE	1	60.0	60.0				60.0
72352	C435413322 TROLLEY LOCOMOTIVE	6	100.0	600.0				600.0
72353	CC52034342 MID S.W. FRIC. PROP	5625	0.025	141.0				141.0
72351	C165015372 VIBRATORY GRITZIV	2	100.0	200.0				200.0
72352	C364613322 IMPACT CRUSHER	2	50.0	100.0				100.0
74220	113314332 CENTRIFUGAL PUMP	4	30.0	120.0				120.0
74220	113314331 CENTRIFUGAL PUMP	27	35.0	945.0				945.0
74312	C25113532 AIR COMPRESSOR	4	10.0	40.0				40.0
74331	1C2311331 AUXILIARY FAN	40	4.5	180.0				180.0
74342	1C51113442 MINE FAN	2	10.0	20.0				20.0
74411	1C65034331 AN/FD TRUCK	1	25.0	25.0				25.0
74411	2C67035372 DUMP TRUCK	18	100.0	1800.0				1,800.0
74411	2C67035372 BOTTOM DUMP TRUCK	10	100.0	1000.0				1,000.0
74411	3C3703331 TRUCK TRAILER	1	20.0	20.0				20.0
74421	C477023352 MATERIAL WAGON	22	50.0	1100.0				1,100.0
74422	215613432 MOBILE CRANE	1	40.0	40.0				40.0

UNICOF/SPC TURKISH COAL WORKS (T.K.F.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.L. ORHAYLI
 PLANT CAPACITY : 300.2 TON
 LOCATION : JELAVELI/BURSA
 ANTICIPATED DATE OF COMMISSIONING : 1995
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 3370 1

SITE CODE	BASIC MACHINE NAME	QT	UNIT WEIGHT	1981
74422 012010372	BELT CONVEYOR	3	100.0	300.0
74422 027001072	BELT CONVEYOR	6	100.0	600.0
74422 117001072	STEEL PLATE CONVEYOR	2	100.0	200.0
74422 107001072	GRASS HAR CONVEYOR	97	30.0	2910.0
77111 104471072	POWER TRANSFORMATOR	6	50.0	300.0

TOTAL =
 1991 14 955.0
 1992
 1993
 1994
 1995
 1996
 1997
 1998
 1999
 2000
 GRAND TOTAL = 14,955.0

WEIGHT RATIO 1991 1990 YFA45

PAGE: 7

1987	1987-1987	1988	1989 1990	TOT.WF
*****	*****	*****	*****	*****
				800.0
				600.0
				700.0
				2.910.0
				300.0

UNIC/SPC TURKISH COAL WTRYS (T.Y.-1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.I. CAN
 PLANT CAPACITY : 777.8 TP-H
 LOCATION : SAK/CAKAKKALE
 ANTICIPATED DATE OF COMMISSIONING : 1997
 UNIT WEIGHTS IN TONS

SYD CODE	BASIC MACHINE NAME	QT	UNIT WEIGHT	1981	1983-1987	1988	1989	1990	TOT.WE
62211	COAL LOADING RUNNER	3	20.0	60.0					60.0
62211	WASTE RUNNER	3	20.0	60.0					60.0
TOTALS 120.0									
GRAND TOTAL=									120.0

UNICC/SPC TURKISH COAL WORKS (T.Y.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MAJOR REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : J.L.L. CAN
 PLANT CAPACITY : 777.8 TPH
 LOCATION : GAZI/CANAKKALE
 ANTICIPATED DATE OF COMMISSIONING : 1997
 UNIT HEIGHTS IN TONS

COMMODITY CODE : 2130

SITC CODE	BASIC MACHINE NAME	QT	UNIT WEIGHT	1981
72341 006024362	BULLDOZER	34	40.0	1360.0
72341 1047012972	MOTOR GRADER	10	8.0	80.0
72342 0092915332	WHEEL LOADER	6	50.0	300.0
72342 2023213331	BACKHOV EXCAVATOR	2	20.0	40.0
72342 3099939932	DAGLINE	1	600.0	600.0
72342 5065029932	ELECTRIC EXCAVATOR	15	600.0	9000.0
72343 0167626362	BLAST HOLE DRILL MACHINE	16	30.0	480.0
72343 2068015331	DRILLING MACHINE	2	60.0	120.0
72331 0169016972	VIBRATORY GRIZZLY	2	100.0	200.0
72332 0354613332	IMPACT CRUSHER	2	50.0	100.0
74220 1133314532	CENTRIFUGAL PUMP	6	30.0	180.0
74411 1065004331	AN/FO TRUCK	4	25.0	100.0
74411 2067036372	DUMP TRUCK	92	100.0	9200.0
74411 2067006372	BOTTOM DUMP TRUCK	12	100.0	1200.0
74411 3027003331	TRUCK TRAILER	1	20.0	20.0
74422 2156134362	MOBILE CRANE	1	40.0	40.0
74426 0132016372	BELT CONVEYOR	2	100.0	200.0
74426 0272016372	BELT CONVEYOR	4	100.0	400.0
74426 1172016372	STEEL PLATE CONVEYOR	2	100.0	200.0

TOTALS
 1981 23,820.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL= 23,820.0

1982	1983-1987	1988	1989	1990	TOT. MF
*****	*****	*****	*****	*****	*****
					1,360.0
					80.0
					300.0
					40.0
					600.0
					9,000.0
					480.0
					120.0
					200.0
					100.0
					180.0
					100.0
					9,200.0
					1,200.0
					20.0
					40.0
					200.0
					400.0
					200.0

UNIDOC/SPC TURKISH COAL WORKS (T.K.O.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : SIVAS_KANGAL
 PLANT CAPACITY : 777.0 TPH
 LOCATION : KANGAL/SIVAS
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT WEIGHTS IN TONS

SITE	CODE	BASIC MACHINE NAME	QT
69211	0222313521	COAL LOADING RUNNER	2
69211	0222313521	WASTE RUNNER	2

TOTALS

1981 80.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL= 80.0

-80-

COMMODITY CODE : 2100 1

WEIGHT BASIS 1981-1990 YEARS

PAGE: 1

UNIT WEIGHT *****	1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT. WT *****
20.0	40.0					40.0
20.0	40.0					40.0

UNICC/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL ECOS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : SIVAS_KANGAL
 PLANT CAPACITY : 777.8 TPN
 LOCATION : KAANGAL/SIVAS
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 213

SITC	CCCE	BASIC MACHINE NAME	QT	UNIT WEIGHT	1981
*****	*****	*****	****	*****	*****
72341	CC66C24362	BULLDOZER	14	40.0	560.0
72341	1C47C12372	MOTOR GRADER	5	8.0	40.0
72342	0C52513352	WHEEL LOADER	1	50.0	50.0
72342	2C33213331	BACKHOE EXCAVATOR	2	20.0	40.0
72342	3C55539332	DRAGLINE	1	600.0	600.0
72342	5C65829332	ELECTRIC EXCAVATOR	10	600.0	6000.0
72343	015752332	BLAST HOLE DRILL MACHINE	13	30.0	390.0
72343	2C68013331	DRILLING MACHINE	2	60.0	120.0
72831	C165013372	VIBRATORY GRIZZLY	2	100.0	200.0
72832	C364613352	IMPACT CRUSHER	2	50.0	100.0
7422C	1133314332	CENTRIFUGAL PUMP	4	30.0	120.0
74411	1C55004331	AMFO TRUCK	3	25.0	75.0
74411	2C67C06372	DUMP TRUCK	52	100.0	5200.0
74411	2C67C06372	BOTTOM DUMP TRUCK	14	100.0	1400.0
74411	3C37003331	TRUCK TRAILER	1	20.0	20.0
74422	2156194362	MOBILE CRANE	1	40.0	40.0
74426	C132016372	BELT CONVEYOR	6	100.0	600.0
74426	C272016372	BELT CONVEYOR	6	100.0	600.0
74426	1172016372	STEEL PLATE CONVEYOR	1	100.0	100.0

TOTALS
 1981 16,255.0
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL = 16,255.0

1982 *****	1983 1987 *****	1988 *****	1989 1990 *****	TOT.WF *****
				560.0
				40.0
				50.0
				40.0
				600.0
				6.000.0
				390.0
				120.0
				700.0
				100.0
				120.0
				75.0
				5.200.0
				7.400.0
				20.0
				40.0
				600.0
				600.0
				100.0

ULIICASPO TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 SUPPLEMENTARY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : A.E.L. ELBISTAN A
 PLANT CAPACITY : 4549 TPA
 LOCATION : ELBISTAN/MARAS
 ANTICIPATED DATE OF COMMISSIONING : 1990
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QTY	UNIT WEIGHT	1981	1989	1990	TOT. WF
72341	CC6602002 BULLDOZER	14	40.0	560.0			560.0
72342	CC4131302 WHEEL LOADER	12	50.0	600.0			600.0
72342	CC1502002 BUCKET WHEEL EXCAVATOR	6	500.0	3000.0			3,600.0
72342	CC1301001 DRILLING MACHINE	1	60.0	60.0			60.0
74222	CC1302002 CENTRIFUGAL PUMP	2	30.0	60.0			60.0
74411	CC5700302 DUMP TRUCK	15	100.0	1500.0			1,500.0
74411	CC4700301 TRUCK TRAILER	2	20.0	40.0			40.0
74422	CC1501002 MOBILE CRANE	1	40.0	40.0			40.0
74422	CC1401002 BELT CONVEYOR	1	400.0	400.0			400.0
74422	CC1402002 BELT CONVEYOR	1	400.0	400.0			400.0
74422	CC9002002 STACKER	2	250.0	500.0			500.0
74422	CC9002002 RECLAIMER	1	250.0	250.0			250.0

TOTALS

1581	
1582	
1583	
1584	
1585	
1586	
1587	
1588	8,510.0
1589	
1590	
GRAND TOTAL	8,510.0

UNIDO/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR EXPENDITURE
 PLANT NAME : S.L.I. 4 TH UNIT
 PLANT CAPACITY : 251 TPA
 LOCATION : SEYITONER/KOTAHYA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 2190 1

WEIGHT BASIS 1981-1990 YEARS

PAGE: 1

SITC CODE	BASIC MACHINE NAME	QT	UNIT WEIGHT	1981	1982	1983-1987	1988	1989-1990	TOT.WF
*****	*****	****	*****	*****	*****	*****	*****	*****	*****
63211 022213321	COAL LOADING BUNKER	2	20.0		40.0				40.0
63211 022331321	WASTE BINNER	2	20.0		40.0				
T O T A L S									
	1981								
	1982		90.0						
	1983								
	1984								
	1985								
	1986								
	1987								
	1988								
	1989								
	1990								
	GRAND TOTAL=		80.0						

011000/SPO TURKISH COAL WORKS (T.Y.)
 CAPITAL COSTS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR EXPANSION
 PLANT NAME : S.L.S. 4 TH UNIT
 PLANT CAPACITY : 231 TPH
 LOCATION : SEYITLER/UTAHYA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 2130 1

WEIGHT BASIS 1971 1990 YEARS

PAGE: 1

SITE CODE	BASIC MACHINE NAME	QT	UNIT WEIGHT	1981	1987	1987-1987	1984	1980-1990	TOTAL
*****	*****	****	*****	*****	*****	*****	*****	*****	*****
72341	006602432 3-ROLLER	5	40.0		200.0				200.0
72342	104701372 MOTOR GRADER	3	8.0		24.0				24.0
72342	005251332 WHEEL LOADER	1	50.0		50.0				50.0
72342	003311332 JACKHOP EXCAVATOR	1	20.0		20.0				20.0
72342	501503332 ELECTRIC EXCAVATOR	3	330.0		1110.0				1,100.0
72343	016762432 BLAST HOLE DRILL MACHINE	4	30.0		120.0				120.0
72343	002211332 DRILLING MACHINE	1	60.0		60.0				60.0
72343	016701372 VIBRATORY DRILLING	2	100.0		200.0				200.0
74422	033461332 IMPACT CRUSHER	1	50.0		50.0				50.0
74422	113331432 CENTRIFUGAL PUMP	4	30.0		120.0				120.0
74422	103503432 AIRFD TRUCK	1	25.0		25.0				25.0
74411	205703332 BOTTOM DUMP TRUCK	12	100.0		1200.0				1,200.0
74411	206703332 DUMP TRUCK	22	100.0		2200.0				2,200.0
74411	003703331 TRUCK TRAILER	1	20.0		20.0				20.0
74422	313611432 MOBILE CRANE	1	40.0		40.0				40.0
74425	012201372 BELT CONVEYOR	2	100.0		200.0				200.0
74425	027201372 BELT CONVEYOR	1	100.0		100.0				100.0
74425	147201632 STEEL PLATE CONVEYOR	1	100.0		100.0				100.0

TOTALS

1981
 1982 6,629.0
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL= 6,629.0

WEIGHT BASIS 1987-1990 YFAMS
COMMODITY CODE 12100 1

UNICORP TURKISH COAL WORK (T.K.A.)
CAPITAL GOODS DEVELOPMENT PROJECT
PRIMARY REQUIREMENTS FOR EXPENSIVE
PLANT NAME : G.L.L. OVERLER
PLANT CAPACITY : 185 TPN
LOCATION : JEWELER/KUTAYIA
ANTICIPATED DATE OF COMMISSIONING :
UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QT	UNIT WEIGHT	1981	1982	1983 1987	1985	1986 1990	TOT. WT
72251	042641532 TROLLEY LOCOMOTIVE	3	100.0		300.0				300.0
72223	052032762 MID-AND FRIG. PRDP	3440	0.025	86.0					86.0
74220	1133314651 CENTRIFUGAL PUMP	14	35.0	490.0					490.0
74341	1023111321 AUXILIARY FAN	78	4.5	126.0					126.0
74342	1061111342 MINE FAN	1	10.0	10.0					10.0
74421	047702332 MATERIAL WINCH	14	50.0	700.0					700.0

TOTALS

1981	
1982	1,712.0
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	
GRAND TOTAL =	1,712.0

COMMODITY CODE: 2710 1

JMISC/SFC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY ACQUISITIONS FOR EXPANSION
 PLANT NAME : J.A.L. CAYIRHAN
 PLANT CAPACITY : 35.5 TON
 LOCATION : BEVAZARI/ANKARA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QT	UNIT WEIGHT	1981	1982	1983-1987	1988	1989	1990	TOT. WT
72342	262201331 DRILLING MACHINE	5	60.0		300.0					300.0
72332	027541342 TRAILER LOCOMOTIVE	10	100.0		1000.0					1000.0
72333	005200342 10.410 P.R.C. PRCP.	1300	0.025		45.3					45.0
74220	113331331 CENTRIFUGAL PUMP	4	35.0		140.0					140.0
74312	023511332 AIR COMPRESSOR	1	10.0		10.0					10.0
74421	047702332 WATER PUMP	1	50.0		50.0					50.0
77111	104421332 POWER TRANSFORMER	8	50.0		400.0					400.0

TOTALS

1981	
1982	1,945.0
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	
GRAND TOTAL	1,945.0

UNION PAC TUNISH COAL WALKS (Y.M.J.)
 CAPITAL COSTS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR WINDMILL
 PLANT NAME: JOLLA TUNISH
 PLANT CAPACITY: 1000 TON
 LOCATION: TUNISH/ALGERIA
 ANTICIPATED DATE OF COMPLETION:
 UNIT BEGINS IN 1981

SITE CODE	BASIC MACHINE NAME	QTY	UNIT WEIGHT	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	TOTAL
72341	CC882532 BULLDOZER	13	40.0		520.0									520.0
72341	1C470L2372 MOTOR GRADER	10	8.0		80.0									80.0
72342	CC529L3352 WHEEL LOADER	2	50.0		100.0									100.0
72342	3C5953532 CRANES	1	600.0		600.0									600.0
72342	5C8582532 ELECTRIC EXCAVATOR	4	500.0		2000.0									2000.0
72342	018762532 40 HP DIESEL ENGINE	7	30.0		210.0									210.0
72342	11542532 ROAD PAVEMENT	1	50.0		50.0									50.0
72352	63241332 TRILLY LOCOMOTIVE	4	100.0		400.0									400.0
72353	CC520032 HEAD AND PUMP	1870	0.025		47.0									47.0
74220	111231632 CENTRIFUGAL PUMP	6	30.0		180.0									180.0
74220	111231631 CENTRIFUGAL PUMP	15	35.0		525.0									525.0
74341	1C2311121 AUXILIARY FAN	12	4.5		54.0									54.0
74411	2C6703372 DUMP TRUCK	24	100.0		2400.0									2400.0
74421	C47702332 MATERIAL WINCH	23	50.0		1150.0									1150.0

TOTALS
 1981
 1982 8,806.0
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL = 8,806.0

UNIC/SPC TURKISH COAL WORKS (T.M.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MECHANARY REQUIREMENTS FOR MODERNIZATION
 PLANT NAME : S.S.I. SEYITMER
 PLANT CAPACITY : 1000 TPA
 LOCATION : SEYITMER/KOTAHYA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QTY	UNIT WEIGHT	1981	1987	1987-1987	1988	1989	1990	TOT.MF
72341	005002342 BULLDOZER	7	40.0	280.0						280.0
72341	104701242 MOTOR GRADER	2	8.0	16.0						16.0
72342	906582932 ELECTRIC EXCAVATOR	3	400.0	1200.0						1200.0
72342	026762332 JLAS HOLE DRILL MAC-4EME	2	30.0	60.0						60.0
72342	200201531 DRILLING MACHINE	2	60.0	120.0						120.0
74411	200700372 DUMP TRUCK	24	103.0	2472.0						2472.0

TOTALS

1981	
1982	4676.0
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	
GRAND TOTAL=	4676.0

UNIC/SPC TULUSH COAL WORKS (T.C.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 BIDDINARY REQUIREMENTS FOR MODERNIZATION
 PLANT NAME: TULUSH SOHA (DAMP)
 PLANT CAPACITY: 250 T/HR
 LOCATION: 3174/12HR
 ANTICIPATED DATE OF COMMISSIONING:
 UNIT WEIGHTS: 4.5 T/HR

SITE CODE	BASIC MACHINE NAME	QTY	UNIT WEIGHT	1981	1982	1983-1987	1988	1989	1990	TOT. WT.
72341	CC6502302 PULLOVER	4	40.0		160.0					160.0
72342	CC0001302 WHEEL TRADER	4	50.0		200.0					200.0
72343	SC6502302 ELECTRICAL EXCAVATOR	2	100.0		1700.0					1,700.0
72352	018762402 BLAST WOLF DRILL MACHINE	4	30.0		120.0					120.0
72352	CA7646302 TRALLEY PROPULSIVE	2	100.0		200.0					200.0
74313	C25511302 AIR COMPRESSOR	1	10.0		10.0					10.0
18342	CC0001302 WHEEL TRADER	1	10.0		10.0					10.0
6411	CC0003072 DUMP TRUCK	15	100.0		1500.0					1,500.0

TOTALS
 1981
 1982 3,600.0
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 1991
 1992
 1993
 1994
 1995
 1996
 1997
 1998
 1999
 2000
 GRAND TOTAL = 3,600.0

JHDC/SPO TURKISH COAL WORKS (T.K.A.S.) CAPITAL GOODS DEVELOPMENT PROJECT MACHINERY REQUIREMENTS FOR REPLACEMENT AND REPAIRS - 1986		HEIGHT BASIS 1991 2000 YEARS										PAGE: 1		
SITC CODE	MACHINE NAME	QTY	LIFE YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.WF
72331	06522442 BULDOZER	14	10	560										560
72332	06753722 WHEEL TRADER	1	10	50										50
72332	20222531 WAGHEE EXCAVATOR	1	10							20				20
72342	50652322 ELECTRIC EXCAVATOR	4	15							3600				3600
72333	01572442 BLAST HOLE DRILL MACHINE	6	10	180										180
72342	206801331 DRILLING MACHINE	1	10	60										60
72831	016921322 VIBRATORY GRIZZLY	2	15					200						200
72832	036461332 IMPACT CRUSHER	2	10							100				100
74220	11331132 CENTRIFUGAL PUMP	15	10							450				450
74311	205201351 4WHEEL TRUCK		10											10
74411	206720372 BOTTOM DUMP TRUCK	16	10	1600										1600
74411	206720372 DUMP TRUCK	22	5	2200										2200
74424	117211372 STEEL PLATE CONVEYOR	2	15					200						200

TOTALS

1991	10600
1992	3050
1993	
1994	
1995	400
1996	
1997	9170
1998	
1999	
2000	
GRAND TOTAL =	9220

SITE CODE	BASIC MACHINE NAME	QTY	UNIT	1987	1991	1997	1999	1999	1999	2000	TOT. ME
72341	BASIC MACHINE NAME	15	10	600							600
72342	BASIC MACHINE NAME	1	10	90							90
72343	BASIC MACHINE NAME	1	10					20			20
72344	BASIC MACHINE NAME	4	15					2400			2400
72345	BASIC MACHINE NAME	5	10	150							150
72346	BASIC MACHINE NAME	1	10	60							60
72347	BASIC MACHINE NAME	2	15		700						200
72348	BASIC MACHINE NAME	2	10					100			100
72349	BASIC MACHINE NAME	5	10					150			150
72350	BASIC MACHINE NAME	1	10								25
72351	BASIC MACHINE NAME	6	10	600							600
72352	BASIC MACHINE NAME	5	5	4500							7400
72353	BASIC MACHINE NAME	1	15					100			100

TOTALS

1991	600
1992	90
1993	20
1994	2400
1995	150
1996	60
1997	200
1998	100
1999	600
2000	7400
GRAND TOTAL	10400

UNICAFED TURKISH COAL WORKS (T.M.F.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : O.L.I. ORHANELI - 1985
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 2100 1

EIGHTH BASIS 1991-2000 YEARS

PAGE: 1

SITC CODE	BASIC MACHINE NAME	QTY	LIFE YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT. WT.
72341	CCCC2342 BULDOZER	7	10	280										280
72342	CC251532 WHEEL LOADER	2	10	100										100
72342	CC3321331 BACHEE EXCAVATOR	2	10					40						40
72342	CC4582742 ELECTRIC EXCAVATOR	4	15					2400						2400
72343	C16762732 BLAST HOLE DRILL MACHINE	5	10	150										150
72348	CC231531 DRILLING MACHINE	1	10	60										60
72831	C16501372 VIBRATORY GRIZZLY	2	15			200								200
72832	CC3461532 IMPACT CRUSHER	2	10					100						100
74220	112331432 CENTRIFUGAL PUMP	4	10					120						120
74411	165504331 AM/FO TRUCK	1	10									25		25
74411	CC6700372 BOTTOM JUMP TRUCK	10	10									1000		1000
74411	266700372 DUMP TRUCK	18	5	1800										1800
74426	1172016372 STEEL PLATE CONVEYOR	2	15			200								200

TOTALS
 1991 2,390
 1992
 1993 400
 1994
 1995 2,660
 1997
 1998
 1999 1,025
 2000
 GRAND TOTAL = 6,675

UW13C/SFC IUR434 COAL WORKS (7.4.11) DETERM_RAT 1991-2000 YEAR 1 PAGES 1
 CAPITAL GOODS DEVELOPMENT PROJECT COMMODITY CODE : 2100 1
 MACHINERY REPLACEMENTS FOR REPLACEMENT NAME OF PLANT AND YEAR BE STARTING : M.L.I. KELES 1985

SITC CODE	BASIC MACHINE NAME	QTY	LIFE YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.MF
72341	CC6602432 BULLDOZER	12	10	480										480
72342	CC5215332 WHEEL LOADER	2	10	100										100
72342	CC2321331 BACHEE EXCAVATOR	1	10						70					70
72342	505829332 ELECTRIC EXCAVATOR	8	15					4800						4800
72343	016762432 BLAST HOLE DRILL MACHINE	4	10	120										120
72343	CC6801531 DRILLING MACHINE	1	10	60										60
72831	C15961372 VIBRATORY GRITZLY	2	15			200								200
72832	C36461332 IMPACT CRUSHER	2	10						100					100
74220	113331432 CENTRIFUGAL PUMP	4	10						120					120
74411	1C6503431 AM/PO TRUCK	1	10									25		25
74411	2C6703472 BOTTOM DUMP TRUCK	11	10										1100	1100
74411	2C6703472 DUMP TRUCK	57	5	5700										5700
74424	1172016372 STEEL PLATE CONVEYOR	2	15			200								200

TOTALS
 1991 6.460
 1992
 1993 400
 1994
 1995 5.040
 1996
 1997
 1998 25
 1999
 2000 1.100
 GRAND TOTAL = 13.025

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UNIT COST CURVES FOR CAPITAL GOODS DEVELOPMENT PROJECT
 UNIT COST CURVES FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : STIVAS-KANGAL - 1985
 UNIT WEIGHTS IN TONS

SITC CODE	BASIC MACHINE NAME	QTY	LIFE YEAR	COMMODITY CODE : 2100 1										PARTY 1			
				1981	1982	1983	1984	1985	1986	1987	1988	1989	2000 TOT. W				
23341	006602432 BULDOZER	14	13	560													560
23342	005503022 WHEEL TRADER	1	13	50													50
23343	003011301 BACKHOE EXCAVATOR	2	13							40							40
23344	003803322 ELECTRIC EXCAVATOR	10	15							6000							6000
23345	005503022 WHEEL TRADER	13	13	190													190
23346	003803322 ELECTRIC EXCAVATOR	2	10	120													120
23347	005503022 WHEEL TRADER	2	15				700										700
23348	003803322 ELECTRIC EXCAVATOR	2	13														100
23349	003803322 ELECTRIC EXCAVATOR	2	13														120
23350	003803322 ELECTRIC EXCAVATOR	6	10														120
23351	003803322 ELECTRIC EXCAVATOR	3	10														75
23352	004603022 IMPACT CRUSHER	2	13														100
23353	003803322 ELECTRIC EXCAVATOR	4	10														120
23354	003803322 ELECTRIC EXCAVATOR	3	10														75
23355	003803322 ELECTRIC EXCAVATOR	14	13														1400
23356	003803322 ELECTRIC EXCAVATOR	57	5	5200													5200
23357	003803322 ELECTRIC EXCAVATOR	1	15														100

TOTALS
 1981 6.320
 1982 332
 1983 332
 1984 332
 1985 332
 1986 332
 1987 332
 1988 332
 1989 332
 2000 1400
 GRAND TOTAL= 14.355

UNIDOC/SPO TURKISH COAL WORKS (T.M.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : F.I.I. BAYKAL -
 UNIT WEIGHTS IN TONS

SITE CODE	BASIC MACHINE NAME	QT	LIFE YR
72341 004024762	DREDGER	14	10
72342 005251532	WHEEL LOADER	2	10
72343 002321301	BACHEE EXCAVATOR	1	10
72342 506582732	ELECTRIC EXCAVATOR	5	15
72343 014762462	BLAST HOLE DRILL MACHINE	8	10
72343 206801531	DRILLING MACHINE	2	10
72331 015901532	VIBRATORY GRIZZLY	4	15
72332 035481332	IMPACT CRUSHER	2	10
74220 113331432	CENTRIFUGAL PUMP	6	10
74411 104500431	4X/FO TRUCK	1	10
74411 205703532	JUMP TRUCK	47	5
74426 117201632	STEEL PLATE CONVEYOR	4	15

TOTALS
 1991 5,720
 1992
 1993 800
 1994
 1995
 1996 3,300
 1997
 1998
 1999 25
 2000

GRAND TOTAL = 9,845

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UNIT/CAPC TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 PRIMARY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : F.L.I DEMIS 1987
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 2100 1 WEIGHT BASIS 1991 2000 YEARS PAGE: 1

SITC CODE	BASIC MACHINE NAME	QT	LIFE YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT. WT
72341	CC16024312 BULDOZER	15	10	600										60
72342	CC22513352 WHEEL TRADER	1	10	50										50
72342	2023213311 BACHEE EXCAVATOR	1	10							70				20
72342	5065923322 ELECTRIC EXCAVATOR	4	15							2400				2400
72343	C167624352 BLAST WHE DRILL MACHINE	5	10	150										150
72343	2068043311 DRILLING MACHINE	1	10	60										60
72331	C155013372 VIBRATORY GRIZZLY	2	15						200					200
72332	C364613352 IMPACT CRUSHER	2	10							100				100
74220	1133314332 CENTRIFUGAL PUMP	5	10								150			150
74411	1059003311 AN/FO TRUCK	1	10		25									25
74411	2067003372 BOTTOM DUMP TRUCK	6	10		600									600
74411	2067003372 DUMP TRUCK	24	5			2400								2400
74426	1172016372 STEEL PLATE CONVEYOR	1	15								100			100

TOTALS
 1991 525
 1992 3-260
 1993
 1994
 1995 300
 1996
 1997 2-670
 1998
 1999
 2000
 GRAND TOTAL= 6-835

UNIDAF/FC TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : A.F.L. ERICSTAD 1988
 UNIT REQUIRED IN TONS

COMMUNITY CODE : 2100 1 DEIGHT RATE : 1991-2000 YEARS PAGE: 1

SITE CODE	BASIC MACHINE NAME	QT	1988 YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT. ME
72341	CC660243+2 JUMDZER	14	10					560						560
72342	CC52515322 HELL PANDA	12	10					600						600
72343	CC68015331 DRILLING MACHINE	1	10					60						60
74210	3111111332 CENTRIFUGAL PUMP	7	10					10						10
74311	206703172 JUMP TRUCK	15	5					1500						1500

TOTALS
 1991
 1592
 1794
 1896
 2593 2.730
 1555
 1597
 1588
 1599
 2000
 GRAND TOTAL = 2.730

UNIT 1975/500 TORNADO COAL WRAK (T.Y. 01)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REPLACEMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : CAL.T. CAN - 1917
 UNIT WEIGHTS IN TONS

COMMODITY CODE : 7100 I

WEIGHT BASIS 1901-2000 YEARS

PAGE: 1

SITE CODE	BASIC MACHINE NAME	ST	LIFE YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOTAL
72341	005000002 JULLD/72	16	10			1360								1360
72342	005000002 WHELL TRAPER	5	10			300								300
72343	002000001 BAG-HEE EXCAVATOR	2	10								40			40
72344	505000002 ELECTRIC EXCAVATOR	15	15								9000			9000
72345	013700002 WAST WOLF DRILL MACHINE	16	10			660								660
72348	005000001 DRILLING MACHINE	2	10			120								120
72351	016500002 FLUORIDITY GRITZLY	2	15				200							200
72352	005000002 IMPACT CRUSHER	2	10								100			100
74220	113310002 CENTRIFUGAL PUMP	6	10											180
74411	165000001 WAFD TRUCK	6	10											100
74411	206700002 BRITHY DUMP TRUCK	12	10											1200
74411	206700002 DUMP TRUCK	97	5											9200
74425	117200002 STEEL PLATE CONVEYOR	2	15						200					200

TOTALS

1591	
1592	1,330
1593	11,460
1594	
1595	400
1596	
1597	3,320
1598	
1599	
2000	
GRAND TOTAL=	22,680

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UNITC/SFC TURKISH COAL W/RYE (T.V.-1)
 CAPITAL CCJS DEVELOPMENT PROJECT
 VEHICULAR REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : E.O.I. VAYANLI 1985
 UNIT WEIGHTS IN TONS

WEIGHT_RAFIT 1991 2000 YEARS

COMMUNITY CODE : 2100 1

PAGE: 1

SITC CODE	BASIC MACHINE NAME	QTY	LIFE YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.WE
72341	006602432 BULLDOZER	12	10	480										480
72342	005213332 WHEEL TRADER	2	10	100										100
72342	202211331 WACHEE EXCAVATOR	1	10						20					20
72342	505539922 ELECTRIC EXCAVATOR	4	10						2400					2400
72342	016762432 BLAST MOLF DRILL MACHINE	8	10	320										320
72349	268013311 DRILLING MACHINE	2	10	120										120
72801	015501372 VIBRATORY CRIBZIV	2	10			200								200
72832	036461332 IMPACT CRUSHER	1	10						50					50
73220	112211332 CENTRIFUGAL PUMP	2	10						60					60
74411	105501331 AMFO TRUCK	2	10							50				50
74411	206703372 JAYTON DUMP TRUCK	16	10										1400	1400
74411	206703372 DUMP TRUCK	38	10	3800										3800
74426	117201372 STEEL PLATE CONVEYOR	2	15			200								200

TOTALS

1991	4,820
1992	
1993	400
1994	
1995	2,530
1996	
1997	
1998	
1999	50
2000	1,400
GRAND TOTAL	9,200

-10/-

PAGE: 1

1981-1990 YEARS

COST-BASIS

COMMODITY CODE : 2130 1

UNIC/SPO TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 BASIC REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.L.I. ISIKLAR_SJMA
 PLANT CAPACITY : 665.0 TPH
 LOCATION : ISIKLAR/SJMA/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1997
 UNIT COST IN 1000 U.S.D.A. DOLLARS

SITE CODE	BASIC MACHINE NAME	QT	UNIT COST	1981	1982	1983-1987	1988	1989	1990	TCT.CO
02211	COAL LOADING BUNKER	3	24.000	72.000						72.000
02211	WASTE HUMPER	2	24.000	48.000						48.000

TOTAL = 120.000
 1981 120.000
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL = 120.000

UNIDOC/SFC TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : E.L.I. ISILAR SOMA
 PLANT CAPACITY : 465.0 TPH
 LOCATION : ISIKLAR/SOMA/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1997
 UNIT COST IN 1000 U.S.A. DOLLARS

COMMODITY

SITC CODE	BASIC MACHINE NAME	QT	UNIT COST
*****	*****	****	*****
72341 0066024342	BULLDOZER	15	200.000
72341 1047012372	MOTOR GRADER	7	150.000
72342 0052515432	WHEEL LOADER	1	470.000
72342 2023213331	BACHHOE EXCAVATOR	1	120.000
72342 5065929332	ELECTRIC EXCAVATOR	4	1500.000
72343 0167624562	BLAST HOLE DRILL MACHINE	5	450.000
72343 1155425302	ROAD HEADER	2	130.000
72343 2062015331	DRILLING MACHINE	1	500.000
72343 2062015331	DRILLING MACHINE	1	500.000
72352 0436415332	TROLLEY LOCOMOTIVE	3	100.000
72352 0052034342	HID AND FRIC. PROP	2000	.189
72391 0165025372	VIBRATORY GRIZZLY	2	538.000
72332 0364615332	IMPACT CRUSHER	2	115.000
74220 1133314332	CENTRIFUGAL PUMP	5	7.000
74220 1133314331	CENTRIFUGAL PUMP	5	20.000
74313 0255113332	AIR COMPRESSOR	3	390.000
74341 1033111321	AUXILIARY FAN	10	2.000
74342 1061113342	MINE FAN	2	160.000
74411 2055034331	AN/FD TRUCK	1	60.000
74411 2067035372	BOTTOM DUMP TRUCK	6	450.000
74411 2067035372	DUMP TRUCK	24	350.000
74411 3037033331	TRUCK TRAILER	1	60.000
74421 0477025332	MATERIAL WINCH	2	400.000
74422 2156134332	MOBILE CRANE	1	50.000
74426 0132015372	BELT CONVEYOR	2	123.000

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CODE : 2100 1

COST-BASIS 1981-1990 YEARS

PAGE : 1

1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
3000.000					3.000.000
1050.000					1.050.000
470.000					470.000
120.000					120.000
6000.000					6.000.000
2250.000					2.250.000
360.000					360.000
500.000					500.000
500.000					500.000
300.000					300.000
378.000					378.000
1076.000					1.076.000
230.000					230.000
35.000					35.000
100.000					100.000
780.000					780.000
20.000					20.000
320.000					320.000
60.000					60.000
2700.000					2.700.000
8400.000					8.400.000
60.000					60.000
800.000					800.000
50.000					50.000
246.000					246.000

UNIDO/SPC TURKISH COAL WORKS (T.K.W.)
CAPITAL GOODS DEVELOPMENT PROJECT
MACHINERY REQUIREMENTS FOR THE NEW PLANT
PLANT NAME : E.L.I. ISIKLAR SOMA
PLANT CAPACITY : 465.0 TPH
LOCATION : ISIKLAR/SOMA/IZMIR
ANTICIPATED DATE OF COMMISSIONING : 1997
UNIT COST IN 1990 U.S.A. DOLLARS

COMMODITY CODE : 2100

SITC CODE	BASIC MACHINE NAME	QT	UNIT COST	1981
74426 0272015372	BELT CONVEYOR	2	123.000	246.000
74426 1172015372	STEEL PLATE CONVEYOR	1	153.000	153.000
74426 1372014352	GRASS BAR CONVEYOR	8	153.000	1224.000
77111 1044215352	POWER TRANSFORMTOR	3	12.000	36.000

TOTALS

1981 31.464.000
1982
1983
1984
1985
1986
1987
1988
1989
1990

GRAND TOTAL= 31.464.000

COST-BASIS

1981-1990 YEARS

PAGE: 2

1982	1983-1987	1988	1989	1990	TOT.CO
*****	*****	*****	*****	*****	*****
					246.000
					153.000
					1.224.000
					36.000

UNICE/SPE TURKISH COAL WORKS (T.K.W.)
CAPITAL GOODS DEVELOPMENT PROJECT
FABRICATED REQUIREMENTS FOR THE NEW PLANT
PLANT NAME : E.L.I. DENIS
PLANT CAPACITY : 370.4 TPH
LOCATION : DENIS/IZMIR
ANTICIPATED DATE OF COMMISSIONING : 1987
UNIT COST IN 1980 U.S.A. DOLLARS

COMMODITY CODE : 2100 1

SITC CODE	BASIC MACHINE NAME	QT	UNIT COST	1981
*****	*****	****	*****	*****
59211 0223313021	COAL LOADING BUNKER	3	24.000	72.000
59211 0223313021	WASTE BUNKER	2	24.000	48.000

T O T A L S

1981 120.000
1982
1983
1984
1985
1986
1987
1988
1989
1990

GRAND TOTAL= 120.000

COST-BASIS

1981-1990 YEARS

PAGE: 1

1982	1983-1987	1988	1989 1990	TOT.CO
*****	*****	*****	*****	*****
				72.000
				48.000

UNICC/SPO TURKISH COAL WORKS (T.Y.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.I. DENIS
 PLANT CAPACITY : 370.6 TON
 LOCATION : DENIS/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1987
 UNIT COST IN 1000 U.S.A. DOLLARS

COMMODITY

SITC CODE	BASIC MACHINE NAME	QT	UNIT COST
*****	*****	****	*****
72341 006602432	BULLDOZER	15	200.000
72341 104701232	MOTOR GRADER	7	150.000
72342 005251332	WHEEL LOADER	1	670.000
72342 203321331	JACKHOF EXCAVATOR	1	120.000
72342 505532932	ELECTRIC EXCAVATOR	4	1500.000
72342 015752432	LAST HOLE DRILL MACHINE	5	450.000
72342 005801331	DRILLING MACHINE	1	500.000
72341 016501532	VIBRATORY GRIZZLY	2	533.000
72332 036461532	IMPACT CRUSHER	2	115.000
74220 112331432	CENTRIFUGAL PUMP	5	7.000
74411 106900431	W/PT TRUCK	1	60.000
74411 206700532	BOTTOM DUMP TRUCK	6	450.000
74411 206700532	DUMP TRUCK	24	150.000
74411 303700331	TRUCK TRAILER	1	60.000
74422 015514432	MOBILE CRANE	1	50.000
74426 011201632	BELT CONVEYOR	2	123.000
74426 027201632	BELT CONVEYOR	2	123.000
74426 117201632	STEEL PLATE CONVEYOR	1	153.000

T O T A L S

1981 26,546.000
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL = 26,646.000

CODE : 2100 1

1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
3000.000					3.000.000
1050.000					1.050.000
470.000					470.000
120.000					120.000
6000.000					6.000.000
2250.000					2.250.000
500.000					500.000
1076.000					1.076.000
230.000					230.000
35.000					35.000
60.000					60.000
2700.000					2.700.000
8400.000					8.400.000
60.000					60.000
50.000					50.000
246.000					246.000
246.000					246.000
153.000					153.000

UNIDEP/SPD TURKISH COAL WORKS (T.P.1)
 CAPITAL ECOS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.L. SEKSY
 PLANT CAPACITY : 777.8 TPH
 LOCATION : SEKKOY/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1996
 UNIT COST IN 1990 U.S.A. DOLLARS

COMMODITY CODE : 2100 1

COST-BASIS

1981-1990 YEARS

PAGE: 1

SITC CODE	BASIC MACHINE NAME	QT	UNIT COST	1981	1982	1983-1987	1988	1989 1990	TOT.CO
*****	*****	****	*****	*****	*****	*****	*****	*****	*****
53211	022231321 COAL LOADING BUNKER	2	24.000	48.000					48.000
63211	022231321 WASTE BUNKER	2	24.000	48.000					48.000
T O T A L S									
	1991		96.000						
	1992								
	1993								
	1994								
	1995								
	1996								
	1997								
	1998								
	1999								
	2000								
	GRAND TOTAL=		96.000						

UNIDOC/SPP TURKISH COAL WORKS (T.R.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.I. SEKKIV
 PLANT CAPACITY : 777.8 TON
 LOCATION : SEKKIV/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1996
 UNIT COST IN 1990 U.S.A. DOLLARS

COMMODITY

SITC CODE	BASIC MACHINE NAME	QT	UNIT COST
*****	*****	****	*****
72341 006024992	BULLDOZER	16	200.000
72341 1047012972	ANTOR GRADER	6	150.000
72342 003206992	WHEEL TRADER	1	470.000
72342 2023211991	BACKHOE EXCAVATOR	1	120.000
72342 309939992	DRAUGHT	2	13000.000
72342 506939992	ELECTRIC EXCAVATOR	6	1500.000
72343 016702992	BLAST HOLE DRILL MACHINE	6	650.000
72343 206203991	DRILLING MACHINE	1	500.000
72331 016702992	VIBRATORY GRIZZLY	2	538.000
72332 003453992	IMPACT CRUSHER	2	115.000
74420 113314992	CENTRIFUGAL PUMP	15	7.000
74411 206700992	DUMP TRUCK	16	450.000
74411 206700992	DUMP TRUCK	22	350.000
74411 303700991	TRUCK TRAILER	1	60.000
74422 215614992	MOBILE CRANE	1	50.000
74426 0132016972	BELT CONVEYOR	2	123.000
74426 0272016972	BELT CONVEYOR	2	123.000
74426 0172016972	STEEL PLATE CONVEYOR	2	153.000

TOTALS

1991 59.709.000
 1992
 1993
 1994
 1995
 1985
 1987
 1983
 1989
 1990

GRAND TOTAL = 69.709.000

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COST-BASIS 1981-1990 YEARS

CODE : 2100

1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
2800.000					2.800.000
900.000					900.000
470.000					470.000
120.000					120.000
35000.000					36.000.000
9000.000					9.000.000
2700.000					2.700.000
500.000					500.000
1076.000					1.076.000
230.000					230.000
105.000					105.000
7200.000					7.200.000
7700.000					7.700.000
60.000					60.000
50.000					50.000
246.000					246.000
246.000					246.000
306.000					306.000

UNIDC/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.L. BAGVAIA
 PLANT CAPACITY : 342.5 TPH
 LOCATION : JAZZAL-3/1241R
 ANTICIPATED DATE OF COMPLETION : 1985
 UNIT COST IN 1980 U.S.D. DOLLARS

COMMODITY CODE = 2100

SITE CODE	BASIC MACHINE NAME	QT	UNIT COST	1981
*****	*****	****	*****	*****
57211 0220313021	COAL LOADING CRIBBER	3	24.000	72.000
57211 0020313021	WASTE CRIBBER	2	24.000	48.000
T O T A L S				
				120.000
				1981
				1980
				1983
				1985
				1987
				1989
				1990
	GRAND TOTAL =			120.000

COST-BASIS

1981-1990 YEARS

PAGE: 1

1982	1983-1987	1988	1989 1990	TOT.CO
*****	*****	*****	*****	*****
				72.000
				48.000

UNIOC/SPO TURKISH COAL WORKS (T.K.I)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.I. BASYALA
 PLANT CAPACITY : 342.5 TPH
 LOCATION : BASYALA/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1995
 UNIT COST IN 1990 U.S.A. DOLLARS

COMMODITY

SITC	CCODE	JASIC MACHINE NAME	QT	UNIT COST
*****	*****	*****	****	*****
72341	CC66C24542	BULLDOZER	14	200.000
72341	1C47012972	MOTOR GRADER	4	150.000
72342	CC52515322	WHEEL GRADER	2	470.000
72342	2C23213331	BACKHOE EXCAVATOR	1	120.000
72342	3C55939332	DRAGLINE	1	18000.000
72342	5C65829332	ELECTRIC EXCAVATOR	5	1500.000
72342	0167624332	BLAST HOLE DRILL MACHINE	8	450.000
72348	2C62015331	DRILLING MACHINE	2	500.000
72831	C169015372	VIBRATORY GRIZZLY	4	538.000
72832	C364615332	IMPACT CRUSHER	2	115.000
74220	1133314332	CENTRIFUGAL PUMP	6	7.000
74411	1C65034331	MINFO TRUCK	1	60.000
74411	2C57033372	DUMP TRUCK	47	350.000
74411	3C37033331	TRUCK TRAILER	1	60.000
74426	C122016372	BELT CONVEYOR	3	123.000
74426	C272016372	BELT CONVEYOR	2	123.000
74426	1172016372	STEEL PLATE CONVEYOR	4	153.000

TOTALS

1581 54.781.000

1982

1783

1584

1585

1986

1987

1988

1589

1990

GRAND TOTAL = 54.781.000

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COST-BASIS

1981-1990 YEARS

PAGE: 1

CODE :2100 1

1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
2800.000					2.800.000
600.000					600.000
940.000					940.000
120.000					120.000
18000.000					18.000.000
7500.000					7.500.000
3600.000					3.600.000
1000.000					1.000.000
2152.000					2.152.000
230.000					230.000
42.000					42.000
60.000					60.000
16450.000					16.450.000
60.000					60.000
369.000					369.000
246.000					246.000
612.000					612.000

UNICEF/SPC TURKISH COAL WORKS (T.K.W)
 CAPITAL GOODS DEVELOPMENT PROJECT
 AUXILIARY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.I. YATAGAN
 PLANT CAPACITY : 648.1 TPH
 LOCATION : YATAGAN/IZMIR
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT COST IN 1000 U.S.A. DOLLARS

COMMODITY

SITC CODE	BASIC MACHINE NAME	QT	UNIT COST
*****	*****	****	*****
72341 006602432	BULLDOZER	12	200.000
72341 1047012372	MOTOR GRADER	4	150.000
72342 0052513352	WHEEL LOADER	2	470.000
72342 2023213331	BACKHOE EXCAVATOR	1	120.000
72342 3055939432	DRAGLINE	1	13100.000
72342 5045829332	ELECTRIC EXCAVATOR	4	1500.000
72343 0167624352	BLAST HOLE DRILL MACHINE	8	450.000
72349 2062015331	DRILLING MACHINE	2	500.000
72831 0165015372	VIBRATORY GRIZZLY	2	538.000
72832 0354515352	IMPACT CRUSHER	1	115.000
74220 1123314332	CENTRIFUGAL PUMP	2	7.000
74411 1065004331	ANFO TRUCK	2	60.000
74411 2067006372	DUMP TRUCK	38	350.000
74411 2067005372	BOTTOM DUMP TRUCK	14	450.000
74411 3037033331	TRUCK TRAILER	1	60.000
74422 2156194352	MOBILE CRANE	1	50.000
74425 0132015372	BELT CONVEYOR	8	123.000
74425 0272016372	BELT CONVEYOR	6	123.000
74426 1172015372	STEEL PLATE CONVEYOR	2	153.000

T O T A L S
 1981 55.723.000
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL= 55.723.000

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CODE :2100 1

COST-BASIS

1981-1990 YEARS

PAGE: 1

1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
2400.000					2.400.000
600.000					600.000
940.000					940.000
120.000					120.000
18000.000					18.000.000
6000.000					6.000.000
3600.000					3.600.000
1000.000					1.000.000
1076.000					1.076.000
115.000					115.000
14.000					14.000
120.000					120.000
13300.000					13.300.000
6300.000					6.300.000
60.000					60.000
50.000					50.000
984.000					984.000
738.000					738.000
306.000					306.000

UNIDC/SPC TURKISH COAL WORKS (T.K.W)
CAPITAL GOODS DEVELOPMENT PROJECT
FABRICATED REQUIREMENTS FOR THE NEW PLANT
PLANT NAME : S.L.I. KELES
PLANT CAPACITY : 333.3 TPH
LOCATION : KELES/JURSA
ANTICIPATED DATE OF COMMISSIONING : 1985
UNIT COST IN 1980 U.S.A. DOLLARS

COMMODITY CODE : 2100

SITC CODE	BASIC MACHINE NAME	QT	UNIT COST	1981
*****	*****	*****	*****	*****
69211 022311321	COAL LOADING BUNKER	3	24.000	72.000
69211 022311321	WASTE BUNKER	3	24.000	72.000

TOTALS
1981 144.000
1982
1983
1984
1985
1986
1987
1988
1989
1990
GRAND TOTAL= 144.000

COST-BASIS

1981-1990 YEARS

PAGE: 1

1982

1983-1987

1988

1989 1990

TCT.CO

72.000

72.000

UNIDO/SPO TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : J.L.I. KELES
 PLANT CAPACITY : 333.3 TPH
 LOCATION : KELES/BURSA
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT COST IN 1980 U.S.A. DOLLARS

SITC	CCDE	BASIC MACHINE NAME	QT
72341	CC660243+2	BULLDOZER	12
72341	1C47012372	MOTOR GRADER	4
72342	0C52515322	4WHEEL GRADER	2
72342	2C23213331	BACKHOE EXCAVATOR	1
72342	5C45829332	ELECTRIC EXCAVATOR	8
72342	0167624302	BLAST HOLE DRILL MACHINE	4
72348	2C68015331	DRILLING MACHINE	1
72831	C165C16372	VIBRATORY GRIZZLY	2
72932	C364615332	IMPACT CRUSHER	2
74220	113331+332	CENTRIFUGAL PUMP	4
74411	1C65009331	AM/FO TRUCK	1
74411	2C67C35372	BOTTOM DUMP TRUCK	11
74411	2C67C35372	DUMP TRUCK	57
74411	3C37003331	TRUCK TRAILER	1
74422	215619+32	MOBILE CRANE	1
74426	C132016372	BELT CONVEYOR	2
74426	C272016372	BELT CONVEYOR	3
74426	1172016372	STEEL PLATE CONVEYOR	2

T O T A L S

1981 45,685.000
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL = 45,685.000

COMMODITY CODE : 2100 1

COST-BASIS . 1981-1990 YEARS

PAGE: 1

UNIT COST *****	1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
200.000	2400.000					2.400.000
150.000	600.000					600.000
470.000	940.000					940.000
120.000	120.000					120.000
1500.000	12000.000					12.000.000
450.000	1800.000					1.800.000
500.000	500.000					500.000
538.000	1076.000					1.076.000
115.000	230.000					230.000
7.000	28.000					28.000
60.000	60.000					60.000
450.000	4950.000					4.950.000
350.000	19950.000					19.950.000
60.000	60.000					60.000
50.000	50.000					50.000
123.000	246.000					246.000
123.000	369.000					369.000
153.000	306.000					306.000

UNIC/SPC TURKISH COAL WORKS (T.K.I.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : J.L.I. ORHANELI
 PLANT CAPACITY : 300.2 TPH
 LOCATION : ORHANELI/BURSA
 ANTICIPATED DATE OF COMMISSIONING : 1995
 UNIT COST IN 1000 U.S.A. DOLLARS

SITC CODE	BASIC MACHINE NAME	QT
72341	CC66C24342 BULLDOZER	7
72341	1C47012372 MOTOR GRADER	3
72342	CC52515332 WHEEL LOADER	2
72342	2C23213331 BACKHOE EXCAVATOR	2
72342	3C55933332 DRAGLINE	1
72342	5C55829332 ELECTRIC EXCAVATOR	4
72343	C167624362 BLAST HOLE DRILL MACHINE	5
72343	1155423362 ROAD HEADER	2
72343	2C62015331 DRILLING MACHINE	1
72343	2C62015331 DRILLING MACHINE	1
72352	C406423332 TROLLEY LOCOMOTIVE	6
72352	CC52C33342 HD AND FRIC. PROP	5625
72931	C165013372 VIBRATORY GRIZZLY	2
72822	C354623332 IMPACT CRUSHER	2
74220	1133314332 CENTRIFUGAL PUMP	4
74220	1133314331 CENTRIFUGAL PU	27
74313	C255113352 AIR COMPRESSOR	4
74341	1C33111321 AUXILIARY FAN	40
74342	1C61113342 FINE FAN	2
74411	1C65C33331 AN/FO TRUCK	1
74411	2C67C33372 DUMP TRUCK	18
74411	2C67C33372 BOTTOM DUMP TRUCK	10
74411	3C37C33331 TRUCK TRAILER	1
74421	C477023332 MATERIAL WINCH	22
74422	2156134362 MOBILE CRANE	1

UNIT COST *****	1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TCT.CO *****
200.000	1400.000					1.400.000
150.000	450.000					450.000
470.000	940.000					940.000
120.000	240.000					240.000
18000.000	18000.000					18.000.000
1500.000	6000.000					6.000.000
450.000	2250.000					2.250.000
180.000	360.000					360.000
500.000	500.000					500.000
500.000	500.000					500.000
100.000	600.000					600.000
.189	1063.125					1.063.125
538.000	1076.000					1.076.000
115.000	230.000					230.000
7.000	28.000					28.000
20.000	540.000					540.000
390.000	1560.000					1.560.000
2.000	80.000					80.000
160.000	320.000					320.000
60.000	60.000					60.000
350.000	6300.000					6.300.000
450.000	4500.000					4.500.000
60.000	60.000					60.000
400.000	8800.000					8.800.000
50.000	50.000					50.000

UNIDOC/SFC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.I. ORHAYLI
 PLANT CAPACITY : 300.2 TPH
 LOCATION : ORHAYLI/SURSA
 ANTICIPATED DATE OF COMMISSIONING : 1985
 UNIT COST IN 1980 U.S.A. DOLLARS

COMMODITY CODE : 2100

SITE CODE	BASIC MACHINE NAME	QTY	UNIT COST	1981
74425 0130014972	BELT CONVEYOR	8	123.000	984.000
74426 0272013372	BELT CONVEYOR	6	123.000	738.000
74425 1072013372	STEEL PLATE CONVEYOR	2	153.000	196.000
74425 1072014952	BRASS BAR CONVEYOR	97	153.000	14941.000
77111 1041013352	POWER TRANSFORMATOR	6	12.000	72.000

TOTALS
 1981 72,849,125
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL= 72,849,125

1982	1983-1987	1988	1989	1990	TOT.CO
*****	*****	*****	*****	*****	*****
					984.000
					738.000
					306.000
					14,841.000
					72.000

UNICC/SPD TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.L.I. CAN
 PLANT CAPACITY : 710.2 TPH
 LOCATION : W.M./ANAKKALE
 ANTICIPATED DATE OF COMMISSIONING : 1997
 UNIT COST IN 1000 U.S.A. DOLLARS

SITC CODE	BASIC MACHINE NAME	QT
67211	COAL LOADING BUNKER	3
57211	WASTE BUNKER	3

T O T A L S

1996	144.000
1992	
1993	
1984	
1995	
1935	
1987	
1993	
1995	
1993	

GRAND TOTAL = 144.000

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COMMODITY CODE : 2100 1

COST-BASIS

1981-1990 YEARS

PAGE: 1

UNIT COST *****	1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
24.000	72.000					72.000
24.000	72.000					72.000

COMMODITY CODE : 2100 1

UNIT/COST TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : S.A.L.I. CAN
 PLANT CAPACITY : 713.2 TPH
 LOCATION : SAMSUNNAKALIS
 ANTICIPATED DATE OF COMPLETION : 1987
 UNIT COST IN 1981 U.S.A. DOLLARS

SITC CODE	MACHINE NAME	QT	UNIT COST	1981	1982	1983-1987	1988	1989	1990	TCT.CO
72341	606602342 BULLDOZER	34	200.000	6800.000						6.800.000
72341	604701272 MOTOR GRADER	10	150.000	1500.000						1.500.000
72342	605251332 WHEEL LOADER	6	470.000	2820.000						2.820.000
72342	605593932 BACKHOPE EXCAVATOR	2	120.000	240.000						240.000
72342	605593932 DRAGLINE	1	18000.000	18000.000						18.000.000
72342	605593932 ELECTRIC EXCAVATOR	15	1500.000	22500.000						22.500.000
72342	605755932 BLAST HOPE DRILL MACHINE	16	450.000	7200.000						7.200.000
72342	606203331 DRILLING MACHINE	2	500.000	1000.000						1.000.000
72331	616521572 VIBRATORY GRIZZLY	2	338.000	1076.000						1.076.000
72332	635461332 IMPACT CRUSHER	2	115.000	230.000						230.000
74220	112314932 CENTRIFUGAL PUMP	6	7.000	42.000						42.000
74411	106503931 AN/FD TRUCK	4	60.000	240.000						240.000
74412	205703972 DUMP TRUCK	92	350.000	32200.000						32.200.000
74412	205703972 BOTTOM DUMP TRUCK	12	450.000	5400.000						5.400.000
74412	203703931 TRUCK TRAILER	1	60.000	60.000						60.000
74422	215619962 MOBILE CRANE	1	50.000	50.000						50.000
74426	612016372 BELT CONVEYOR	2	123.000	246.000						246.000
74426	627201572 BELT CONVEYOR	4	123.000	492.000						492.000
74426	117201572 STEEL PLATE CONVEYOR	2	153.000	306.000						306.000

T C T A L S

1981	100.402.000
1982	
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	
GRAND TOTAL	100.402.000

UNICOC/SPO TURKISH COAL WORKS (T.M.11)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : KANGAL SIVAS
 PLANT CAPACITY : 777.8 TPH
 LOCATION : KANGAL/SIVAS
 ANTICIPATED DATE OF COMMISSIONING : 1995
 UNIT COST IN 1990 U.S.A. DOLLARS

ITEM	CODE	BASIC MACHINE NAME	QTY	UNIT
59211	0222313421	COAL LOADING BUNKER	2	
59211	0222313501	WASTE TRUCKER	2	
T O T A L S				
	1981		96.000	
	1982			
	1983			
	1984			
	1985			
	1986			
	1987			
	1988			
	1989			
	1990			
	GRAND TOTAL =		96.000	

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COMMODITY CODE :2100 1

COST-BASIS

1981-1990 YEARS

PAGE: 1

T COST	1981	1982	1983-1987	1988	1989 1990	TCT.CO
*****	*****	*****	*****	*****	*****	*****
24.000	48.070					48.000
24.000	48.000					48.000

COST-BASIS 1981-1990 YEARS

COMMODITY CODE : 2100 1

UNIDC/SPC TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : KANGAL SIVAS
 PLANT CAPACITY : 777.8 TPH
 LOCATION : KANGAL/SIVAS
 ANTICIPATED DATE OF COMMISSIONING : 1995
 UNIT COST IN 1000 U.S.A. DOLLARS

SITC CODE	BASIC MACHINE NAME	QTY	UNIT COST	1981	1982	1983-1987	1988	1989	1990	TOT. CO
72341	606626342 BULLDOZER	14	200.000	2800.000						2.800.000
72341	1647012972 MOTOR GRADER	5	150.000	750.000						750.000
72342	002251332 WHEEL LOADER	1	470.000	470.000						470.000
72342	202321331 BACKHOE EXCAVATOR	2	120.000	240.000						240.000
72342	305553332 DRAGLINE	1	18000.000	18000.000						18.000.000
72342	506582932 ELECTRIC EXCAVATOR	10	1500.000	15000.000						5.850.000
72343	016762432 BLAST HOLE DRILL MACHINE	13	450.000	5850.000						1.000.000
72348	2062015331 DRILLING MACHINE	2	500.000	1000.000						1.076.000
72831	0165015372 VIBRATORY GRIZZLY	2	538.000	1076.000						230.000
72832	036461532 IMPACT CRUSHER	2	115.000	230.000						28.000
74220	112331532 CENTRIFUGAL PUMP	4	7.000	28.000						180.000
74411	106504331 AM/FO TRUCK	3	60.000	180.000						18.200.000
74411	206700372 JUMP TRUCK	52	350.000	18200.000						6.300.000
74411	206700372 BOTTOM DUMP TRUCK	14	450.000	6300.000						66.000
74411	303700331 TRUCK TRAILER	1	60.000	60.000						50.000
74422	215519352 MOBILE CRANE	1	50.000	50.000						738.000
74426	0132016372 BELT CONVEYOR	6	123.000	738.000						738.000
74426	0272016372 BELT CONVEYOR	6	123.000	738.000						153.000
74426	1172016372 STEEL PLATE CONVEYOR	1	153.000	153.000						

TOTALS
 1981 71.863.000
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990 71.863.000

UNICC/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR THE NEW PLANT
 PLANT NAME : A.E.L. ELBISTAN A
 PLANT CAPACITY : 2801.1 TPH
 LOCATION : ELBISTAN/MARAS
 ANTICIPATED DATE OF COMMISSIONING : 1984
 UNIT COST IN 1980 U.S.A. DOLLARS

SITC	CCDE	BASIC MACHINE NAME	QT
*****	*****	*****	*****
72341	CC66024342	BULLDOZER	14
72342	CC41315342	WHEEL LOADER	12
72342	CC39923932	BUCKET WHEEL EXCAVATOR	6
72343	2C13015931	DRILLING MACHINE	1
74230	1133314332	CENTRIFUGAL PUMP	2
74411	2C97034372	DUMP TRUCK	15
74411	3C47033331	TRUCK TRAILER	2
74422	2156134352	MOBILE CRANE	1
74426	C154019332	BELT CONVEYOR	1
74426	C154019332	BELT CONVEYOR	1
74428	C39C027332	STACHER	2
74428	C39C027332	RECLAIMER	3

T C T A L S

1981 157.517.59
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL = 157.517.59

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COMMODITY CODE : 2100 1

COST-BASIS 1981-1990 YEARS

PAGE: 1

UNIT COST *****	1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
200.000	2800.000					2.800.000
470.000	5640.000					5.640.000
11357.440	68144.640					68.144.640
500.000	500.000					500.000
7.000	14.000					14.000
350.000	5250.000					5.250.000
60.000	120.000					120.000
50.000	50.000					50.000
13767.456	13767.456					13.767.456
60,000.000	60,000.000					60,000.000
431.596	863.192					863.192
122.6	368.001					368.001

UNIDOC/OPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 FABRICATED REQUIREMENTS FOR EXPANSION
 PLANT NAME : S.L.I. 4 TH UNIT
 PLANT CAPACITY : 231 TPA
 LOCATION : SEYITMER/KUTAHYA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1990 U.S.A. DOLLARS

SITE CODE	BASIC MACHINE NAME	QTY
69211 0222313521	COAL LOADING BUNKER	2
67211 0223313521	WASTE BUNKER	2

TOTALS

1991		
1992	96.000	
1993		
1986		
1985		
1996		
1997		
1983		
1982		
1990		
GRAND TOTAL =	96.000	

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COMMODITY CODE : 2100 1

COST-BASIS 1981-1990 YEARS

PAGE: 1

UNIT COST *****	1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
24.000		48.000				48.000
24.000		48.000				48.000

UNIT00/SPO TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR EXPANSION
 PLANT NAME : S.L.I. 4 TM UNIT
 PLANT CAPACITY : 231 TPA
 LOCATION : SEYITONE/KUTAHYA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1980 U.S.A. DOLLARS

SIIC CODE	BASIC MACHINE NAME	QT	UNIT COST	1981	1982	1983-1987	1988	1989	1990	TOT.CO
72341	CC66C24342 BULLDOZER	5	200.000	1000.000	1000.000	1000.000	1000.000	1000.000	1000.000	1.000.000
72341	164701272 MOTOR GRADER	3	150.000	450.000	450.000	450.000	450.000	450.000	450.000	450.000
72342	CC52515322 WHEEL LOADER	1	470.000	470.000	470.000	470.000	470.000	470.000	470.000	470.000
72342	202321331 BAC400F EXCAVATOR	1	120.000	120.000	120.000	120.000	120.000	120.000	120.000	120.000
72342	506582932 ELECTRIC EXCAVATOR	3	1500.000	4500.000	4500.000	4500.000	4500.000	4500.000	4500.000	4.500.000
72343	016762432 BLAST HOLE DRILL MACHINE	4	450.000	1800.000	1800.000	1800.000	1800.000	1800.000	1800.000	1.800.000
72348	2C6801331 DRILLING MACHINE	1	300.000	300.000	300.000	300.000	300.000	300.000	300.000	300.000
72831	C165C1672 VIBRATORY GRIZZLY	2	538.000	1076.000	1076.000	1076.000	1076.000	1076.000	1076.000	1.076.000
72832	C36461332 IMPACT CRUSHER	1	115.000	115.000	115.000	115.000	115.000	115.000	115.000	115.000
74220	113331432 CENTRIFUGAL PUMP	4	7.000	28.000	28.000	28.000	28.000	28.000	28.000	28.000
74411	1655C3431 AM/FO TRUCK	1	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
74411	2C6703372 DITOM DUMP TRUCK	12	450.000	5400.000	5400.000	5400.000	5400.000	5400.000	5400.000	5.400.000
74412	2C5703372 DUMP TRUCK	22	350.000	7700.000	7700.000	7700.000	7700.000	7700.000	7700.000	7.700.000
74411	3C3703331 TRUCK TRAILER	1	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
74422	215613322 MOBILE CRANE	1	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000
74424	C132C1372 BELT CONVEYOR	2	123.000	246.000	246.000	246.000	246.000	246.000	246.000	246.000
74424	C27201372 BELT CONVEYOR	2	123.000	246.000	246.000	246.000	246.000	246.000	246.000	246.000
74424	117201372 STEEL PLATE CONVEYOR	1	153.000	153.000	153.000	153.000	153.000	153.000	153.000	153.000

TOTALS

1981	23.974.000
1982	
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	
GRAND TOTAL=	23.974.000

UNICC/SPO TURKISH COAL WORKS (T.K.F.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR EXPANSION
 PLANT NAME : S.L.I. OMERLER
 PLANT CAPACITY : 185.0 T/M
 LOCATION : OMERLER/MOTAHYA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1990 U.S.A. DOLLARS

SITE	CODE	MACHINE NAME	QTY
*****	*****	*****	*****
72351	0476415332	TROLLEY LOCOMOTIVE	3
72353	0052034342	HIO.AND FRIC.PROP	3440
74220	1133344331	CENTRIFUGAL PUMP	14
74341	1033111321	AUXILLIARY FAN	28
74342	1051111342	MINE FAN	1
74421	0477025332	MATERIAL WINCH	14

T O T A L S

1991
 1982 7,046,160
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990

GRAND TOTAL= 7,046,160

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COMMODITY CODE :2100 1

COST-BASIS

1981-1990 YEARS

PAGE: 1

UNIT COST *****	1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CU *****
100.000		300.000				300.000
.189		650.160				650.160
20.000		280.000				280.000
2.000		56.000				56.000
160.000		160.000				160.000
400.000		5600.000				5.600.000

UNICOC/SPO TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR EXPANSION
 PLANT NAME : J.A.L. CAYIRHAN
 PLANT CAPACITY : 55.5 TPH
 LOCATION : BEYPAZARI/ANKARA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1990 U.S.A. DOLLARS

COMMODITY CODE : 2100

SITC CODE	BASIC MACHINE NAME	QT	UNIT COST	1981
*****	*****	****	*****	****
72340 2052015731	DRILLING MACHINE	5	500.000	
72352 0436416332	TRALLEY LOCOMOTIVE	10	100.000	
72353 0052004742	RID.AND FRIC.PROP	1800	.189	
74220 1133314531	CENTRIFUGAL PUMP	4	100.000	
74312 0255113532	AIR COMPRESSOR	1	190.000	
74421 0477025332	MATERIAL WINCH	1	400.000	
77111 1044215732	POWER TRANSFORMATOR	8	12.000	

TOTALS
 1991
 1992 5,126.200
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL = 5,126.200

COST-BASIS

1981-1990 YEARS

PAGE: 1

1982	1983-1987	1988	1989 1990	TCT.CN
*****	*****	*****	*****	*****
2500.000				2,500.000
1300.000				1,000.000
340.200				340.200
400.000				400.000
390.000				390.000
400.000				400.000
96.000				96.000

UNIDC/SPC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR MODERNIZATION
 PLANT NAME : S.L.I. SEYITOMER
 PLANT CAPACITY : 1000 TPH
 LOCATION : SEYITOMER/KOTAHYA
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1000 U.S.A. DOLLARS

SITC	CCODE	BASIC MACHINE NAME	QT
*****	*****	*****	****
72341	CC66C24242	BULLDOZER	7
72341	1C47012362	MOTOR GRADER	2
72342	5065829332	ELECTRIC EXCAVATOR	3
72343	0167624362	BLAS HOLE DRILL MACHINE	2
72343	2C62015311	DRILLING MACHINE	2
74411	2C67036372	DUMP TRUCK	24

TOTALS

1981	
1982	16,500.000
1983	
1984	
1985	
1986	
1987	
1988	
1989	
1990	

GRAND TOTAL = 16,500.000

COMMODITY CODE :2100 1

COST-BASIS

1981-1990 YEARS

PAGE: 1

UNIT COST *****	1981 *****	1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
200.000		1400.000				1.400.000
150.000		300.000				300.000
1500.000		4500.000				4.500.000
450.000		900.000				900.000
500.000		1000.000				1.000.000
350.000		8400.000				8.400.000

UNICOC/SPO TURKISH COAL WORKS (T.K.-1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR MODERNIZATION
 PLANT NAME : S.L.I.SOMA IDAME
 PLANT CAPACITY : 250 TPH
 LOCATION : SCHIR/IZMIR
 ANTICIPATED DATE OF COMMISSIONING :
 UNIT COST IN 1980 U.S.A. DOLLARS

COMMODITY CODE : 2100 1

SITC	CCOE	BASIC MACHINE NAME	QT	UNIT COST	1981
*****	*****	*****	****	*****	*****
72341	0066024342	BULLDOZER	4	200.000	
72342	0052515352	WHEEL LTRDER	4	470.000	
72342	5065829332	ELECTRICAL EXCAVATOR	2	1500.000	
72343	0167624362	BLAST HOLE DRILL MACHINE	4	450.000	
72352	0436415362	TRALLEY LOCOMOTIVE	2	100.000	
74313	0255113552	AIR COMPRESSOR	1	390.000	
74342	1061113342	MINE FAN	1	160.000	
74411	2067005372	DUMP TRUCK	15	350.000	

T O T A L S
 1981
 1982 13,480.000
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 GRAND TOTAL = 13,480.000

COST-BASIS

1981 1990 YEARS

PAGE: 1

1982 *****	1983-1987 *****	1988 *****	1989 1990 *****	TOT.CO *****
				800.000
800.000				1.880.000
1880.000				3.000.000
3300.000				1.800.000
1800.000				200.000
200.000				390.000
390.000				160.000
160.000				5.250.000
5250.000				

UNIOC/SFC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : F.L.I. SEKKOY - 1986
 UNIT COST IN 1000 USA DOLLARS

SITC CODE	BASIC MACHINE NAME	QTY	LIFE YEAR	1991	1992
*****	*****	*****	*****	*****	*****
72341 1000024942	BULLDOZER	14	10		2800
72342 0052515352	WHEEL LOADER	1	10		470
72342 2023213331	BACHEE EXCAVATOR	1	10		
72342 3065825332	ELECTRIC EXCAVATOR	6	15		
72343 0167624362	BLAST HOLE DRILL MACHINE	6	10		2700
72343 2068015331	DRILLING MACHINE	1	10		570
72331 0169016372	VIBRATORY GRIZZLY	2	15		
72332 0364633352	IMPACT CRUSHER	2	10		
74220 1133314632	CENTRIFUGAL PUMP	15	10		
74411 2067004372	DUMP TRUCK	22	5		7700
74411 2067004372	BOTTOM DUMP TRUCK	16	10	7200	
74426 1172016372	STEEL PLATE CONVEYOR	2	15		

TOTALS
 1991 7,200
 1992 14,170
 1993
 1994
 1995 1,382
 1996
 1997 9,455
 1998
 1999
 2000

GRAND TOTAL = 32,207

: 2100 1

COST BASIS 1991-2000 YEARS

PAGE: 1

1993	1994	1995	1996	1997	1998	1999	2000	TOT.CO
*****	*****	*****	*****	*****	*****	*****	*****	*****
								2800
								470
				120				120
				9000				9000
								2700
								500
	1076							1076
				230				230
				105				105
								7700
								7200
		306						306

UNIDC/SPC TURKISH COAL WORKS (T.K.1)

COMMODITY CODE : 2100 1

COST BASIS 1991-2000 YEARS

PAGE: 1

CAPITAL GOODS DEVELOPMENT PROJECT
MACHINERY REPLACEMENTS FOR REPLACEMENT
NAME OF PLANT AND YEAR OF STARTING : F.L.I. SONYA - 1997
UNIT COST IN 1000 USA DOLLARS

SITC CODE	BASIC MACHINE NAME	QT	LIFE YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT. COST
72341	CC66C24442 BULDOZER	15	10			3000								3000
72342	CC52S13332 WHEEL LOADER	1	10			470								470
72342	CC23213331 BACHEE EXCAVATOR	1	10								120			120
72343	5065823332 ELECTRIC EXCAVATOR	4	15			2350					6000			6000
72343	0167624332 BLAST WPLE DRILL MACHINE	5	10											2250
72343	2C68015331 DRILLING MACHINE	1	10			500								500
72831	C165016372 VIBRATORY GRIZZLY	2	15						1076					1076
72832	C364613332 IMPACT CRUSHER	2	10								230			230
7422C	1133314332 CENTRIFUGAL PUMP	5	10								35			35
74411	1C65004331 AN/FD TRUCK	1	10		60									60
74411	2C67035372 BOTTOM DUMP TRUCK	6	10		2700									2700
74411	2C67006372 DUMP TRUCK	24	5			8400								8400
74426	1172015372 STEEL PLATE CONVEYOR	1	15						153					153
T O T A L S														
1591														
1592						2760								2760
1593						14620								14620
1594														
1595														
1596						1229								1229
1597														
1598						5385								5385
1599														
2000														
GRAID TOTAL=														24994

UNICOC/SPO TURKISH COAL WORKS (T.K.I.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : B.L.T. ORHANELI 1985
 UNIT COST IN 1000 USA DOLLARS

COMMODITY CODE : 2700 1

COST BASIS 1991-2000 YEARS

PAGE: 1

SITC	CCDE	BASIC MACHINE NAME	QT	LIFE	YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.CO
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
72341	206602432	BULLDOZER	7	10	1400											1400
72342	0052515352	WHEEL LOADER	2	10	940											940
72342	2023213331	BACHEE EXCAVATOR	2	10							240					240
72342	5055829332	ELECTRIC EXCAVATOR	4	15							6000					6000
72343	0167624302	BLAST HOLE DRILL MACHINE	5	10	2250											2250
72343	2062015331	DRILLING MACHINE	1	10	500											500
72831	0155015372	VIBRATORY GRIZZLY	2	15			1076									1076
72832	0364615352	IMPACT CRUSHER	2	10							230					230
74220	1133314532	CENTRIFUGAL PUMP	4	10							28					28
74411	1055034331	AN/FD TRUCK	1	10										60		60
74411	2067036372	BOTTOM DUMP TRUCK	10	10										4500		4500
74411	2067036372	DUMP TRUCK	18	5	6300											6300
74426	1172015372	STEEL PLATE CONVEYOR	2	15				306								306

TOTALS
 1991 11,390
 1992
 1993 1,382
 1994
 1995
 1996 6,498
 1997
 1998
 1999 4,560
 2000
 GRAND TOTAL = 23,830

UNITID/SPEC TURKISH COAL WORKS (T.F.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : M.L.I. KELES 1985
 UNIT COST IN 1000 USA DOLLARS

SITC CODE	JASIC MACHINE NAME	QT	LIFE YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.CO
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
72341	06602-3-2 BULLDOZER	12	10	2400										2400
72342	0052515352 WHEEL LOADER	2	10	940										940
72342	2023213331 BACHEE EXCAVATOR	1	10						120					120
72342	5055823332 ELECTRIC EXCAVATOR	9	15						12000					12000
72343	0167624362 BLAST WPLE DRILL MACHINE	4	10	1800										1800
72343	2068015331 DRILLING MACHINE	1	10	500										500
72831	0159013372 VIBRATORY GRIZZLY	2	15			1076								1076
72832	0364615352 IMPACT CRUSHER	2	10						230					230
74220	113331-332 CENTRIFUGAL PUMP	4	10							28				28
74411	1055034331 AN/FD TRUCK	1	10									60		60
74411	2007034372 BOTTOM DUMP TRUCK	11	10										4950	4950
74411	2007034372 DUMP TRUCK	57	5	19950										19950
74426	1172016372 STEEL PLATE CONVEYOR	2	15										306	306

TOTALS

1991	25,590
1992	1,362
1993	1,362
1994	1,362
1995	12,378
1996	1,362
1997	1,362
1998	60
1999	4,950
2000	4,950
GRAND TOTAL =	44,360

UNICE/SFO TURKISH COAL WORKS (T.K.W)
 CAPITAL GOODS DEVELOPMENT PROJECT COMMODITY CODE
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : SYVAS-KANGAL - 1985
 UNIT COST IN 1000 USA DOLLARS

SITC CODE	BASIC MACHINE NAME	QT	LIFE YEAR	1991	1992
*****	*****	*****	*****	*****	*****
72341	0000024542 BULDOZER	14	10	2800	
72342	0052515352 WHEEL LOADER	1	10	470	
72342	2023213931 BACHEE EXCAVATOR	2	10		
72342	5065829332 ELECTRIC EXCAVATOR	10	15		
72343	0167624762 BLAST HOLE DRILL MACHINE	13	10	5850	
72348	2068015331 DRILLING MACHINE	2	10	1000	
72831	C169016372 VIBRATORY GRIZZLY	2	15		
72832	C364513352 IMPACT CRUSHER	2	10		
74220	1133314532 CENTRIFUGAL PUMP	4	10		
74411	1065034931 AN/FO TRUCK	3	10		
74411	2067034372 BOTTOM DUMP TRUCK	14	10		
74411	2067034372 DUMP TRUCK	52	5	18200	
74426	1172016372 STEEL PLATE CONVEYOR	1	15		

T O T A L S
 1991 28,320
 1992
 1993 1,229
 1994
 1995
 1996 15,518
 1997
 1998
 1999 180
 2000 6,300
 GRAND TOTAL= 51,547

UNIDC/SPC TURKISH COAL WORKS (T.K.I.)
CAPITAL GOODS DEVELOPMENT PROJECT
MACHINERY REQUIREMENTS FOR REPLACEMENT

COMMODITY CODE : 2100 1

NAME OF PLANT AND YEAR OF STARTING : F.I.I. BAGYALA - 1985
UNIT COST IN 1990 USA DOLLARS

SITC CODE	BASIC MACHINE NAME	QT	LIFE	YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT.CO
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
72341	CC66024342 BULLDOZER	14	10		2800										2800
72342	CC525.3352 WHEEL LOADER	2	10		940										940
72342	2C23213331 BACHEE EXCAVATOR	1	10							120					120
72342	5C45929332 ELECTRIC EXCAVATOR	5	15							7500					7500
72343	C167524362 BLAST HOLE DRILL MACHINE	8	10		3600										3600
72343	2060015331 DRILLING MACHINE	2	10		1000										1000
72831	C169016372 VIBRATORY GRIZZLY	4	15				2152								2152
72832	C364615332 IMPACT CRUSHER	2	10							230					230
74220	1133314332 CENTRIFUGAL PUMP	6	10							42					42
74411	1C45004331 AN/FO TRUCK	1	10										60		60
74411	2C67035372 DUMP TRUCK	47	5		16450										16450
74426	1172016372 STEEL PLATE CONVEYOR	4	15				612								612

TOTALS

1991 24,790

1992

1993 2,764

1994

1995 7,892

1996

1997

1998

1999 60

2000

GRAND TOTAL= 35,506

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UNIDC/DFC TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : F.A.I. DENIS - 1987
 UNIT COST IN 1000 USA DOLLARS

COMMODITY CODE : 2100 1

SITC CODE	BASIC MACHINE NAME	QTY	LIFE YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT. CO
72341	0056024747 BULL DOZER	15	10	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	3000
72342	0052513752 WHEEL LOADER	1	10	*****	*****	470	*****	*****	*****	*****	*****	*****	*****	470
72343	2021213931 BACKHOE EXCAVATOR	1	10	*****	*****	*****	*****	*****	*****	*****	120	*****	*****	120
72342	5058253442 ELECTRIC EXCAVATOR	4	15	*****	*****	*****	*****	*****	*****	*****	6000	*****	*****	6000
72343	0167524932 BLAST HOLE DRILL MACHINE	5	10	*****	*****	2250	*****	*****	*****	*****	*****	*****	*****	2250
72349	2058015931 DRILLING MACHINE	1	10	*****	*****	500	*****	*****	*****	*****	*****	*****	*****	500
72831	0165016972 VIBRATORY CRIZZLY	2	15	*****	*****	*****	*****	*****	*****	*****	230	*****	*****	230
72832	0364615932 IMPACT CRUSHER	2	10	*****	*****	*****	*****	*****	*****	*****	35	*****	*****	35
74220	1122314932 CENTRIFUGAL PUMP	5	10	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	60
74411	1065004931 AN/FO TRUCK	1	10	*****	*****	2700	*****	*****	*****	*****	*****	*****	*****	2700
74411	2067034972 BOTTOM DUMP TRUCK	6	10	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	8400
74411	2067034972 DUMP TRUCK	24	5	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	153
74426	1172015972 STEEL PLATE CONVEYOR	1	15	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	153

TOTALS

1991	2,760
1992	16,620
1993	1,994
1994	1,593
1995	1,896
1996	1,229
1997	6,385
1998	6,385
1999	2,000
2000	24,994
GRAND TOTAL	24,994

UNIDC/SPP TURKISH COAL WORKS (T.K.W)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : A.E.F. ELBISTAN B - 1990
 UNIT COST IN 1990 USA DOLLARS

SITC CODE	BASIC MACHINE NAME	QTY	LIFE YEAR	1991	1992
*****	*****	*****	*****	*****	*****
72341 0066021742	BULLDOZER			14	
72342 0052515352	WHEEL LOADER			12	
72348 2059015731	DRILLING MACHINE			1	
74220 1132314532	CENTRIFUGAL PUMP			2	
74411 2067004972	DUMP TRUCK			15	
T O T A L S					
				1991	
				1992	
				1993	
				1994	
				1995	14.204
				1996	
				1997	
				1998	
				1999	
				2000	
				GRAND TOTAL=	14.204

2100 1

COST BASIS 1991-2000 YEARS

PRDP 2

1993	1994	1995	1996	1997	1998	1999	2000	TOT.CO
*****	*****	*****	*****	*****	*****	*****	*****	*****
		2800						2800
		5640						5640
		500						500
		14						14
		5250						5250

UNIDOC/SPD TURKISH COAL WORKS (T.K.W.)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : C.L.T. CAN - 1987
 UNIT COST IN 1000 USA DOLLARS

COMMODITY CODE

SITE	CODE	BASIC MACHINE NAME	QTY	LIFE YEAR	1991	1992
*****	*****	*****	*****	*****	*****	*****
72341	0000024542	BULLDOZER	34	10		
72342	0052515332	WHEEL LOADER	6	10		
72342	2023213331	BACHEE EXCAVATOR	2	10		
72342	5065925932	ELECTRIC EXCAVATOR	15	15		
72342	0167504932	BLAST HOLE DRILL MACHINE	16	10		
72342	2000015331	DRILLING MACHINE	2	10		
72331	0165045972	VIBRATORY GRIZZLY	2	15		
72330	0364615932	IMPACT CRUSHER	2	10		
74220	1133314532	CENTRIFUGAL PUMP	6	10		
74411	1055034931	AN/FD TRUCK	4	10		240
74411	2057005972	BOTTOM DUMP TRUCK	12	10		5400
74411	2067005972	DUMP TRUCK	92	5		
74425	1170015972	STEEL PLATE CONVEYOR	2	15		

TOTALS
 1991
 1992 5,640
 1993 53,020
 1994
 1995
 1996 1,382
 1997
 1998 23,012
 1999
 2000
 GRAND TOTAL= 80,054

COST BASIS 1991-2000 YEARS PAGE: 1
 : 2100 1

1993	1994	1995	1996	1997	1998	1999	2000	TOT.CO
*****	*****	*****	*****	*****	*****	*****	*****	*****
6900								6900
2820								2820
					240			240
					22500			22500
7300								7200
1000								1000
			1076					1076
					230			230
					42			42
								240
								5400
32200								32200
			306					306

UNIT/CFPC TURKISH COAL WORKS (T.K.1)
 CAPITAL GOODS DEVELOPMENT PROJECT
 MACHINERY REQUIREMENTS FOR REPLACEMENT
 NAME OF PLANT AND YEAR OF STARTING : F.L.I. YATAGAN - 1985
 UNIT COST IN 1000 USA DOLLARS

SITC CODE	BASIC MACHINE NAME	QTY	LIFE YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOT. CO
72341	006624342 BULLDOZER	1	12	10	2400									2400
72342	002513332 WHEEL LOADER	2	10	940										940
72342	002221341 QACHEE EXCAVATOR	1	10						120					120
72342	006582332 ELECTRIC EXCAVATOR	4	15						6000					6000
72343	016762432 BLAST HOLE DRILL MACHINE	8	10	1600										1600
72349	005801331 DRILLING MACHINE	2	10	1000										1000
72831	016501372 VIBRATORY GRIZZLY	2	15			1076								1076
72832	033451332 IMPACT CRUSHER	1	10						115					115
74220	112314332 CENTRIFUGAL PUMP	2	10						14					14
74411	106503331 AMFO TRUCK	2	10									120		120
74411	005700372 BOTTOM DUMP TRUCK	14	10										6300	6300
74411	006703372 DUMP TRUCK	38	5	13300										13300
74425	117201372 STEEL PLATE CONVEYOR	2	15			306								306

TOTALS
 1991 21,240
 1992 1532
 1993 1,382
 1994 1594
 1995 1395
 1996 6,249
 1997 1997
 1998 1553
 1999 120
 2000 6,300
 GRAND TOTAL = 35,291

