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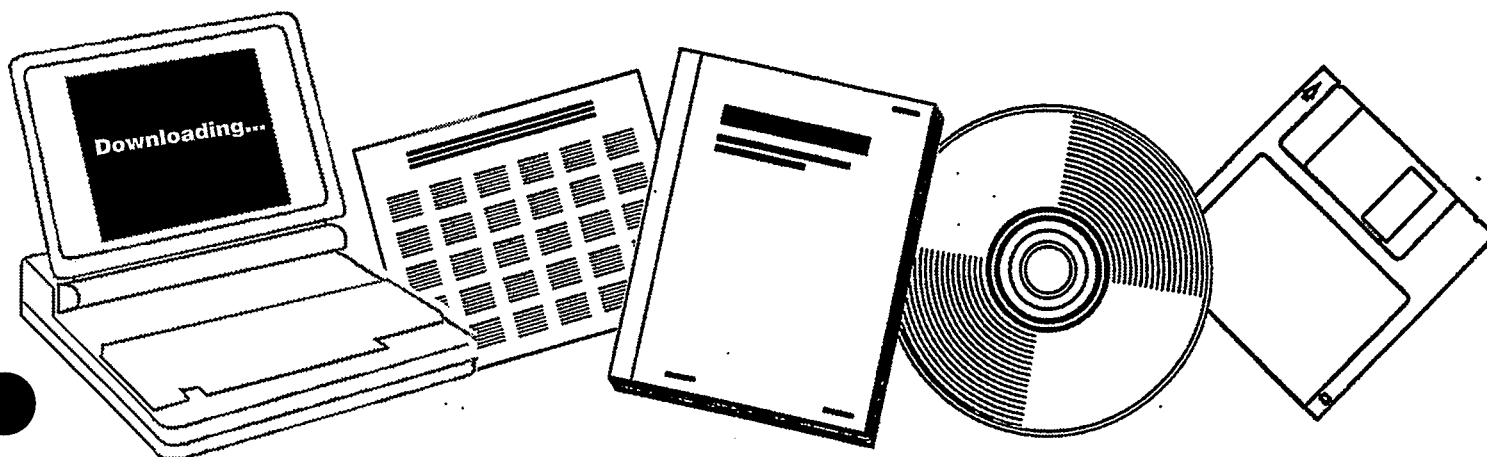
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**PROJECT POGO: COAL REFINERY COMPLEX  
CONCEPTUAL DESIGN/ECONOMIC ANALYSIS;  
POWER, OIL, GAS, OTHER PRODUCTS. R AND D  
REPORT NO. 114, INTERIM REPORT NO. 6**

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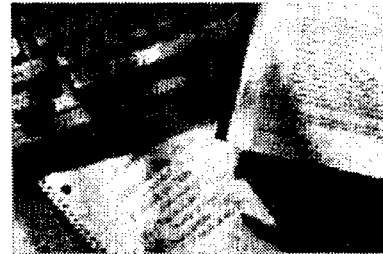
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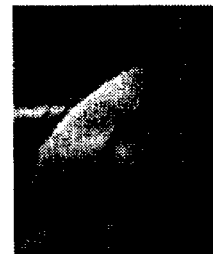
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Springfield, VA 22161

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**PROJECT POGO—COAL REFINERY COMPLEX CONCEPTUAL  
DESIGN/ECONOMIC ANALYSIS POWER—OIL—GAS—OTHER PRODUCTS**

**R&D Report No. 114, Interim Report No. 6**

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**The Ralph M. Parsons Company**  
**Pasadena, California**

**FOUNTAIN ENERGY**



**U. S. DEPARTMENT OF ENERGY**

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PROJECT POGO - COAL REFINERY COMPLEX  
CONCEPTUAL DESIGN/ECONOMIC ANALYSIS

POWER - OIL - GAS - OTHER PRODUCTS

R & D REPORT NO. 114, INTERIM REPORT NO. 6

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F-36-FS-1	36	Process Waste Water Treating
R-38/39/40/41-FS-1	38/39/40/41	Fire Water System, Potable and Sanitary Water System, Raw Water System, Effluent Water Treating

## ABBREVIATIONS

av	average
bb1	barrel(s)
BCY	bank cubic yards
BFW	boiler feed water
BOD	biological oxygen demand
BOE	barrels of oil equivalent (6,000,000 Btu)
bp	boiling point
BPD	barrels per day
BPCD	barrels per calendar day
BPSD	barrels per stream day
Btu	British thermal unit
Btu/hr	British thermal units per hour
BWSR	bucket wheel stacker reclaimers
CA	Corrosion allowance
CI	cast iron
COD	chemical oxygen demand
COG	Coal-Oil-Gas
CS	carbon steel
cs	centistokes
DCF	discounted cash flow rate of return
D/E	debt/equity ratio
DOE	Department of Energy
DTPH	dry tons per hour
eff	efficiency
ERDA	Energy Research and Development Administration

ABBREVIATIONS (Contd)

EUAC	equivalent uniform annual cost
FIFO	first in first out
gpm	gallons per minute
Hdr	header
HHV	higher heating value
hp	horsepower
HP	high pressure
ISO	International Standards Organization
kV	kilovolt
kWh	kilowatt hour
lb	pounds
lb/hr	pounds per hour
LP	low pressure
M	thousand
m	mesh
MAF	moisture and ash free (coal)
MEA	monoethanolamine
MF	moisture free (coal)
MM	million
MW	megawatts
MWe	megawatts electricity
PDU	process development unit
PERC	Pittsburgh Energy Research Center
PMCC	Pensky-Martens closed cup
POGO	Power-Oil-Gas-Other
ppm	parts per million

ABBREVIATIONS (Cont'd)

ppmv	parts per million by volume
psi	pounds per square inch
psia	pounds per square inch absolute
psig	pounds per square inch gauge
RAR	required annual revenue
ROM	run-of-mine (raw coal from mine, unbroken, and not cleaned)
RON	research octane number
RVP	Reid vapor pressure
scf	standard cubic feet
scfd	standard cubic feet per day
scfh	standard cubic feet per hour
SH	shell
SNG	substitute natural gas
SPTC	self-propelled transfer conveyor
sp gr	specific gravity
SS	stainless steel
stp	standard temperature and pressure
STPD	short tons per day
Syngas	synthesis gas
T	tubes
TBP	true boiling point
TPD	short tons per day
TPH	short tons per hour
TPSD	short tons per stream day

ABBREVIATIONS (Cont'd)

TPY	short tons per year
VM	volatile material
wt	weight