PROCESS SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

PLAINTIFF'S EXHIBIT UC-56

Process
~~Mine~~
Facility ASBESTOS Plant King City

COMPLETED BY F. H. Larrison, Jr. DATE March 1973

II - PROCESS/FACILITY DESCRIPTION

The mill contains 2 separate circuits:

I The main mill circuit in which asbestos ore from the mine is upgraded mechanically to 3 classes of product, i.e., standard grade, superstandard grade, and high purity.

II The RG-244 circuit in which high purity product from the main circuit is further purified and sized, and a fiber coating of SiO_2 is obtained by chemical precipitation.

Circuit I Description

(A) Rock Fiber Department - common to all products. Asbestos ore from the stockpile is moved from the stockpile to the com-bin feeder by loader and a conveyor belt. A controlled feed of ore from the com-bin reports to the primary vibrating screen where, with water addition to form a slurry, the material is screened to ± 3/16 inch.

Upgrading-removal of magnetite, serpentine, and other gangue material - and sizing of fiber content of the primary screen underflow is accomplished by cycloning the slurry through 3 6 inch cyclones, screening of the cyclone product by a 1 mm DSM screen, and cycloning the DSM underflow through 6 4 inch cyclones. The cyclone overflow reports to a 24 ft. thickener to become feed for the Refining Department. The cyclone underflow is processed through a 3 ft. and a 6 ft. magnetic separator - in series - and is then routed to the 24 ft. thickener as refiner feed.

The 1 mm DSM screen oversize is tabled to give 3 table products, i.e., asbestos flake, middlings, and tailings. The middlings return to the DSM screen, the tailings report to the tailings classifier, and the asbestos flake reports to a 12 inch flake mill for grinding. Additional feed to the flake mill results from processing of the primary screen overflow which is upgraded by gangue removal in a jig separator and screened over a 1/8 inch vibrating screen The screen oversize reports to the flake mill while the screen undersize reports as feed to the DSM screen. Jig separator heavies are tailings and report to the tailings classifier. Ground fiber slurry from the flake mill is cycloned and the cyclone overflow reports to the 24 ft. thickener as refiner feed. Cyclone underflow material becomes refiner feed following magnetite removal in a 6 ft. magnetic separator.

Total tailings from the mill process are made up of the following streams:

Rock Fiber - Jig mill heavy fraction, shaking table tailings, magnetic separator tailings

Refiner Dept. - A cycloned tailings stream from the refiner primary cyclones.

(B) Refiner Department -

1. Standard Grade Product - Slurry underflow from the 24 ft. thickener is ground through a wet grinding mill - a Bauer Mill - to give 55% -200 mesh, and is pumped to the filter feed surge tank.

2. Super Standard Grade Product - Slurry underflow from the 24 ft. thickener is ground through the Bauer Mill and then additionally ground through an M-30 wet grinding hammer mill. The resulting solids - approximately 75% -200 mesh, are pumped to the filter feed surge tank.

A 16496

PROCESS SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

Process
~~Mine~~
~~Facility~~ ASBESTOS Plant King City

COMPLETED BY F. H. Larrison, Jr. DATE March 1973

II - PROCESS/FACILITY DESCRIPTION

3. High Purity Product - Super standard grade pulp is further upgraded and fiber size is reduced by additional cycloning through a primary cyclone circuit of 49 4 inch cyclones and then cycloning this overflow product through 120 3 inch secondary cyclones. The overflow slurry from the secondary cyclones reports to the filter feed surge tank. Cyclone underflows become internal circuit circulating streams and tailings result from screening the underflow of the primary cyclone circuit. Product solids are approximately 0.60% magnetite and 88% -200 mesh at this point. The high purity product slurry is used as feed for the RG-244 circuit and by adding TiO_2 at 35% by weight to the slurry entering the filter feed surge tank, the titanated products are made.

(C) Filtering & Drying Departments

The product slurry from the filter feed surge tank is filtered through Shriver filter presses. The filter cake is approximately 50% solids and is moved from the filter area to the dryers by drag conveyers. All product is dried as a pellet by introducing the filter cake to the Roto-Louvre dryer by extrusion through a die plate. The normal product pellet is 5/8 inch diameter although a 1/8 inch diameter pellet is available in special products. Drying to less than 1.0% H_2O is accomplished in the kiln type dryer using natural gas as fuel, and the dried pellets are then routed to one of two bins for storage by a series of bucket elevators and screw conveyors. Dried pellets can also be routed directly to a rail car for bulk loaded product.

(D) Product Handling Department

Product packaging consists of two Raymond Mills, for grinding and opening of pellets prior to packaging, and two pressure baggers for filling bags. Two specialty product mills are available for making special grinds, i.e., a Jeffrey Mill and a Disc Mill.

Depending upon the product being packaged - whether pellets or open material - the pellets are fed from the storage bin by screw conveyor to either the grinding mills, for open material, or directly to the baggers in the case of pellet product. Open product from the Raymond Mills is conveyed by the air stream through a cyclone into a live-bottom bin from where it is fed to the baggers by screw conveyors. Filled bags are palletized in normally 40 bag pallets for shipment by truck or rail car. Product for overseas is hand loaded - individual bags - into containers. All product is palletized for removal from the mill building by fork-lift to the mill yard storage area and overseas containers are filled by breaking down of pallets.

Circuit II Description

The RG-244 circuit receives it's feed from two possible sources:

1. RG Feed Preparation circuit - Slurry from the 24 ft. thickener is ground in an 18 inch wet grinding hammer mill - Rietz Mill - and is then cycloned in 3 inch cyclones. The cyclone overflow, containing 8-12% +200 mesh particles, is routed to the 244 feed surge tank while the cyclone underflow returns to the 24 ft. thickener.

2. High purity product slurry, prior to filtering, can be routed to the 244 feed surge tank as feed material.

A 16497

PROCESS SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

Process
~~Mine~~
~~Facility~~ ASBESTOS Plant King City

COMPLETED BY F. H. Larrison, Jr. DATE March 1973

II - PROCESS/FACILITY DESCRIPTION

The slurry from the 244 feed tank is further ground in a Rietz Mill and cycloned in a bank of 14 1 inch cyclones. The overflow solids from the cyclones, now containing less than 0.30% magnetite and 0.60-0.70% +200 mesh particles is routed to one of two treatment tanks. Measure amounts of Na_3SiO_3 and CH_3COOH are added and, following the proper mixing times, the treated batch is discharged into the filter feed surge tank.

The treated slurry is filtered in a filter press and the resultant filter cake, approximately 18-20% solids, is forced through an extruder into the Roto-Louvre-kiln type-dryer. The dried pellets are conveyed by a bucket elevator to the storage bin.

All RG-244 product is fully opened prior to packaging by routing the pelletized-dried-material from the storage bin to an 18 inch Raymond Mill. The opened material is air-swept from the mill to a dry cyclone and discharged into the bagger supply chamber. The product is packaged by a pressure packer into paper bags. Each bag is sealed in a polypropylene overwrap bag for moisture control and the individual bags are palletized in a 35 bag pallet enclosed in a waxed cardboard shroud. As with the other mill products, RG-244 being shipped overseas consists of individual overwrapped bags hand loaded into containers. Other shipments are made by rail and by truck.

Tailings are removed from the milling circuits at approximately 70-80% solids by conveying to a temporary tailings pile immediately east of the mill building. Periodically the tailings are moved from the temporary pile to the permanent location approximately 1/4 mile east of the mill buildings. Haulage of the tailings is accomplished by use of a self propelled scraper.

A 10468

PROCESS SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

PROCESS ASBESTOS PLANT King City

COMPLETED BY F. H. Larrison DATE March 1973

XIV.- OTHER EMISSIONS, POLLUTION PROBLEMS AND EMPLOYEE COMMENTS

MINE

Ore Dust During Ore Screening and Ore Haulage

The mine dust suppression program keeps the ore stockpile, screened ore, and, in general, the entire pit working area relatively free of airborne dust particulates. There are occasions, however, mostly due to area winds and extreme temperature, when dust conditions will be less favorable.

All UCC personnel are required to wear approved respirators when dust conditions occur. Ore haulage trucks are covered with tarps and only minor amounts of dust escape along the haul route.

Ore Dust During Stripping and Mining

Airborne dust particulates are more noticeable when stripping and mining is being performed. The contractor is responsible for keeping the conditions at a minimum. Haul road blading and watering is necessary not only to improve the dust situation, but also to attain peak operating efficiency.

Approved respirators are provided for the contracted workmen.

Dust samples are taken on an average of two times per operating year.

Noise Levels

The maximum noise level of 90 decibels is exceeded when the ore screening equipment is in use, therefore, earplugs or muffs are necessary.

MILL

A 10459

Airborne Asbestos Fiber

Ore stockpiles, as well as the temporary tailings pile, are immediately adjacent to the mill process building, office building, warehouse, laboratory, and maintenance facilities. During the spring-summer-fall months, a 20-30 mph wind from north to south is a daily occurrence in this area and control of blowing dust is a problem. Water sprays are used to keep the stockpile area wet while a sprinkler truck is employed to control dusting on level surfaces. A contract sweeper cleans the parking area and asphalted and concrete areas around the mill buildings. External process transfer points, i.e., in the dryer and dust collector areas - are enclosed and internal negative pressures are maintained.

Airborne fiber levels in the process and service buildings generally range below the TLV. However, in the product grinding and bagging circuit, there are times when the level is well above the TLV. Modifications have been made in the department by enclosing the bagging and conveying machines and maintaining a negative pressure in the hoods but levels remain too high when using the palletizer. Use of respirators is required in this area.

Noise levels are right at or slightly above 90 dBA in all production areas and on loaders. Earplugs are necessary.

ENVIRONMENTAL PROTECTION SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

PLANT King City, CA DATE March 1973

COMPLETED BY F. H. Larrison

XV. - SPECIAL PROBLEMS

A. Other Problems (Such as radiation, odor, fugitive dusts, undesirable aesthetic features (Describe)

MINE

The UCC private portion of the ore haulage route includes 5-1/2 miles of salt-stabilized red shale roadbase material. During the hot and dry summer months, ore truck traffic produces clouds of dust. Attempts are made to minimize the problem by periodic re-blading and watering of the roadway.

Since our stripping and mining operations result in a single pit with wide benches at controlled elevations, we do not encounter any land reclamation problems at this time.

The dumping of overburden material at several convenient locations outside the immediate pit vicinity might create some future problems since the waste piles are steeply sloping at the natural angle of repose.

The moisture content of overburden and ore material will range between 15 and 20 per cent, and after material is placed in piles, a semi-crust is formed on the exposed surfaces which effectively eliminates wind-blown dust unless the crusts are disturbed by vehicular traffic.

In general the mine is located in an isolated area with the nearest inhabitant 9 miles distant, and the nearest town (Coalinga, California) some 30 miles to the southeast.

MILL

Product Packaging

Development of leakproof packages to stop leakage of asbestos into shipping containers is necessary. All product is at present packed by a pressure packer and perforation of the multi-layer paper bags is necessary. Another leakage point is the bag fill spout which is not positive sealing. Asbestos is leaked from the palleted bags during transit in RR cars, truck vans, overseas containers, and flat-bed trucks. A contamination problem is thus created for the party unloading the shipping container and for customers storing our product.

A 10300

ENVIRONMENTAL PROTECTION SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

PLANT King City

COMPLETED BY F. H. Larrison DATE March 1973

XV. - SPECIAL PROBLEMS

B. Community Complaint and Attitude Towards Industry

MINE

Public comments have been limited to two groups: one group being the Bureau of Land Management and the other being the San Benito County Supervisors.

In August 1971 the Bureau of Land Management finalized its designation of the San Benito Mountain natural area. Prior to this, UCC had agreed to curtail any immediate development of their claims located within this area.

The San Benito County Board of Supervisors initiated, in June 1972, a proposed quarrying ordinance which would be directed toward reclamation of mined areas. As of this writing, UCC has no further word on the status of the ordinance.

Note: The UCC present mining operations and the majority of its claims are located in San Benito County. Some claims are in adjacent Fresno County.

MILL

There have been no community complaints directed toward the mill. Some complaints have been voiced verbally to people working at the mill - concerning truck traffic on the Bitter Water road during the time ore is being hauled from the mine to the mill.

Community attitude toward the mill operation has been favorable so far as we know.

A10501

ENVIRONMENTAL PROTECTION SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

PLANT King City, CA

COMPLETED BY F. H. Larrison DATE March 1973

XV. - SPECIAL PROBLEMS

C. Emissions/Items not in Compliance with Existing Regulations or Regulatory Agency Requests (Describe Items and Plans for Compliance)

MILL

Fiber count in the bagging still exceeds TLV at times when operating the palletizer - due to the air-magnet mode of operation of the machine. A new palletizer is on order and will be installed by mid 1973.

EPA regulations call for cloth filter type collectors on asbestos ore dryer off-gas stacks. Baghouse collectors are on order, engineering is completed, and installation of the collectors should be complete by mid 1973.

A 10502

PROCESS SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

PLANT King City, CA

COMPLETED BY F. H. Larrison DATE March 1973

XVI. - MISCELLANEOUS

MINE

1. Plans for Improvement

A. Resurface portions of the UCC private ore haulage road with asphaltic pavement. This will improve the dust problem and reduce road maintenance costs as well as insuring greater vehicular safety and performance.

B. Insist on more adequate ore truck side boards and better tie downs for the tarps. Past conditions have resulted in minor spillage over the sides of the trucks.

C. Investigate the benefits of cab pressurized air conditioning units on the front end loaders. This would eliminate the wearing of respirators except during severe dust conditions.

D. Continue to collect airborne dust samples during mining operations to determine the need for increased dust suppression methods.

E. Improve and enlarge the water spraying dust control systems installed in 1972.

MILL

Improvements

1. It is possible that government regulations will result in our having to build a change house where each man can have two lockers so separated that his street clothes will not be contaminated by his work clothes. This is in a state of flux and depends upon interpretation of the regulations and our success of failure in achieving TLV levels in the bagging area. It was thought that if necessary a change house would not be required before 1974.

2. Plant engineering will direct efforts at noise abatement in the mill as time is available.

3. Installation of a pellet cooling circuit will allow bagging of pellets in non-perforated bags by an auger packer rather than a pressure packer, which will help control dust levels somewhat. Other engineering efforts are directed toward bags with positive sealing fill spouts and shrink wrapping of individual bags and pallets to minimize spillage both internally and externally to the mill.

Monitoring - The operation is presently monitored for airborne asbestos fiber by sampling at nine locations each month. Future monitoring will probably require time weighted exposure determinations at six month intervals on operators.

A 10503

PROCESS SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

PROCESS/FACILITY MINE PLANT KING CITY

COMPLETED BY R.D. MARSTEN - R.D. HOPPER DATE 3/73

III-A - INPUT

Raw Mat'l, Utility, etc.	Units	Amount	Function	Remarks
Water, Boiler Feed				
~~Cooling~~ CREEK WATER	GAL/HR	2500	KEEP ORE WET	RAINBIRD SPRINKLERS
Cycle Makeup				SPRAY ORE PILES - SCREENING
				DURING DAYLIGHT IN SUMMER
~~Process~~ WATER TRUCK	GAL/LOAD	6600	SUPRESS DUST	2 LOADS ON ROAD PER DAY
Steam				2 LOADS ON PIT AREA Req.
Utilities, Other				
Materials, Raw				
DIESEL FUEL	GPD	25		QUANTITIES USED
GASOLINE	"	30		BY UCC EQUIPTMENT
LUBRICATING OILS	"	1		8 HRS PER DAY
GREASE	LBS/D	2		6 MONTHS PER YEAR
DIESEL FUEL	GPD	500	ESTIMATED	USED BY CONTRACTOR
LUBRICATING OIL	"	10	" "	TO HAUL ORE
GREASE	LBS/D	10	" "	16 HRS/DAY 4 MO/YEAR
DIESEL FUEL	GPD	300	ESTIMATED	USED BY CONTRACTOR
LUBRICATING OIL	"	10	" "	STRIPPING AND
GREASE	LBS/D	5	" "	MINING
GASOLINE	GPD	5	" "	10 HRS/DAY 1 MONTH
				PER YEAR
Materials, Auxiliary				

III-B - USEFUL PRODUCTS

Stream	Component	Wt.	TONS/day	How Shipped
	ORE		1500	WHILE MINING AVE
	OVERBURDEN		1500	" " " "
	ORE		600	WHILE HAULING - TANDEM BOTTOM
				DUMP FROM MINE TO PLANT
				55 MILES

A 10504

PLANT KING CITY
COMPLETED BY R. O. MARSTEN DATE 3/73

XII. - WATER QUALITY

DISCHARGE NO. DISCHARGE IMPOUNDED NAME EVAPORATES AND PERCOLATES

PARAMETERS OF INTAKE WATER AND DISCHARGE

PARAMETER	UNTREATED INTAKE WATER	DAILY AVERAGE DISCHARGE CONCENTRATION
	UNITS milligrams/liter = ppm	
ALKALINITY (as $CaCO_3$)	172	716
B.O.D. 5-DAY		
CHEMICAL OXYGEN DEMAND (C.O.D.)	<2	854
TOTAL SOLIDS	355	1764
TOTAL DISSOLVED SOLIDS	355	1750
TOTAL SUSPENDED SOLIDS	<.1	14
TOTAL VOLATILE SOLIDS	80	347
AMMONIA (as N)	<.10	<.10
KIELDAHL NITROGEN	<.10	<.10
NITRATE (as N)	<.02	<.02
PHOSPHORUS TOTAL (as P)	0.5	0.3
ACIDITY (as $CaCO_3$)	-	-
TOTAL ORGANIC CARBON (T.O.C.)		
TOTAL HARDNESS		
NITRITE (as N)	<.01	0.01
ORGANIC NITROGEN	<.10	<.10
PHOSPHORUS-ORTHO (as P)	0.3	0.2
SULFATE	20	20
SULFIDE	<.1	<.1
SULFITE	<1	<1
BROMIDE	<.1	<.1
CHLORIDE	34	182
CYANIDE	<.05	<.05
FLUORIDE	<1	<1
CALCIUM - TOTAL	86	44
MAGNESIUM - TOTAL	19	74

PARAMETER	UNTREATED INTAKE WATER	DAILY AVERAGE DISCHARGE CONCENTRATION
	UNITS milligrams/liter = ppm	
POTASSIUM - TOTAL		
SODIUM - TOTAL		
OIL AND GREASE		
KEROSENE	<.01	0.02
SURFACTANTS		
ALGICIDES		
CHLORINATED HYDROCARBONS (EXCEPT PESTICIDES)		
PESTICIDES		

RADIOACTIVE PARAMETERS	UNITS picocurie/liter	
DISSOLVED ALPHA - TOTAL	9	1
ALPHA COUNTING ERROR	.27	.24
DISSOLVED BETA - TOTAL	128	99
BETA COUNTING ERROR	1.60	1.53
DISSOLVED RA 226		
RA 226 COUNTING ERROR		
DISSOLVED Th 230		
Th 230 COUNTING ERROR		

COMMENTS:
MONTHLY AGGREGATE SAMPLES
MARCH 1971

A10505

Published by AsbestosClaims.Law
asbestosclaims.law/library/15340/10

ENVIRONMENTAL PROTECTION SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

PLANT KING CITY
COMPLETED BY R.O. MARSTEN
DATE 3/73

XII. - WATER QUALITY

DISCHARGE NO. —
NAME —

PARAMETERS OF INTAKE WATER AND DISCHARGE

PARAMETER	UNTREATED INTAKE WATER	DAILY AVERAGE DISCHARGE CONCENTRATION
	UNITS micrograms/liter = ppb	
ALUMINUM - TOTAL	8500	<1000
ANTIMONY - TOTAL	<50	<50
ARSENIC - TOTAL	20	10
BARIUM - TOTAL	4110	1180
BERYLLIUM - TOTAL	<100	2270
BORON - TOTAL	120	120
CADMIUM - TOTAL	<10	<10
CHROMIUM - TOTAL	<10	<10
COBALT - TOTAL	<100	<100
COPPER - TOTAL	130	<10
IRON - TOTAL	<100	<100
LEAD - TOTAL	<10	<10
MANGANESE - TOTAL	<10	<10
MERCURY - TOTAL	<.1	<.1
MOLYBDENUM-TOTAL	<100	<100
NICKEL - TOTAL	<100	1300
SELENIUM - TOTAL	<10	<10
SILVER - TOTAL	<10	<10
THALLIUM - TOTAL		
TIN - TOTAL	<1000	1400
TITANIUM - TOTAL		
TUNGSTEN - TOTAL		
URANIUM - TOTAL		
VANADIUM - TOTAL	<2	<2
ZINC - TOTAL	<10	<10
PHENOLS	<1	<1

PARAMETER	UNTREATED INTAKE WATER	DAILY AVERAGE DISCHARGE CONCENTRATION
	UNITS as specified	
COLOR (Pt-Co units)	0	0
SPECIFIC CONDUCTANCE (mhos at 25° C.)	540	1760
TURBIDITY (Jackson units)		
FECAL STREPTOCOCCI BACTERIA number/100 mi		
COLIFORM BACTERIA FECAL number/100 mi		
COLIFORM BACTERIA TOTAL number/100 mi		
FLOW GPD ( ) MGPD ( ) GPM ( )		
pH	8.15	8.10
Temperature (Winter) (°F)		
Temperature (Summer) (°F)		

ppb - means Parts Per Billion
ppm - means Parts Per Million
GPD- means Gallons Per Day
MGPD-means Million Gallons Per Day
GPM- means Gallons Per Minute

A10503

PROCESS SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

PROCESS/~~FACILITY~~ ASBESTOS PLANT KING CITY

COMPLETED BY R.O. MARSTEN DATE 3/73

VII. - STORAGE TANKS

Tank No.	Size (Gal)	* Type	Contents	Sp Gr	MW	Odor	Mat'l of Const.	Dia. (ft)	Ht. (ft)	Press (psig)
	8000	A	GLACIAL ACETIC ACID			YES	ALUMIUM	9'-3"	16'-0"	A
	22000	A	SODIUM SILICATE			-	STEEL	16'	16'	A
	500	A	GASOLINE							
	1000	A	DIESEL FUEL							
	10,000	PV	LP GAS							

* Type A - Atmospheric, PV - Pressure Vented, PNV - Pressure Non Vented, FR - Floating Roof, B - Bin, S - Silo

Pollution Abatement Devices

ACETIC ACID AND SODIUM SILICATE TANKS DYKED WITH DRAIN TO POND

Handling and Cleaning (Emissions)

SLIGHT ACETIC ACID ODOR AT MIXING TANK

A10307

PROCESS SURVEY -- ENVIRONMENTAL IMPACT ANALYSIS

PROCESS ASBESTOS PLANT KING CITY
COMPLETED BY R. O. MARSTEN DATE 3/73

IX - NOISE EMISSIONS

A. Abnormal Noise Emissions (above 85 Decibels; dBA)

Source	Location (In/Out Doors)	Sound Pressure (dBA)	At Distance (ft)	Exposure (Hrs/Shift)
	SEE ATTACHED SHEET			

B. Sound Pressure and Range in Usual Work Areas (Provide data if available)

Location	Sound Pressure (dBA)	Range (dBA)	Remarks
RG 244 BAGGER	88	88-90	EAR PLUGS WORN
REFINER CONTROL STATION	88	87-92	" " "
GEN. MILL AREA		81-96	" " "

C. Noise Emissions to Public

Source	Location Measured	Sound Pressure (dBA)	Distance from Plant Boundary	Hrs/day
NONE				

D. Abnormal Noise Abatement Plans or Protective Measures

EAR PLUGS REQUIRED IN MILL - NOISE ELIMINATION ENGINEERING TO BE DONE BY PLANT ENGINEER AS TIME AVALIABLE

A 10508

PROCESS SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

PLANT KING CITY COMPLETED BY R.O. MARSTEN DATE 3/73

FACILITY ASBESTOS

IV-A. ENERGY SYSTEMS INFORMATION

A. Boiler and Fuel Data

Boiler No.	Input (MM Btu/hr)	Fuel * Type	Feed Rate (~~lb/hr~~) (scfh)	Heat Cont. (Btu/~~lb~~ Cu ft)	Composition (%) Ash	Sulfur	Others	Stac N
1*	2.8	NAT GAS	2800	1000	-		-	1

* USED FOR PROCESS STEAM ONLY DURING PART of HI PURITY RUNS. OPERATES 20% TIME

B. Stack and Abatement Data

Stream No.	Stack ** No.	Ht. (ft)	Dia. (ft)	Exit Gas Flow (ft^3/min)	Vel. (ft/sec)	Temp (°F)	Moisture (%)	Pollution Abatement Equip. Type	Eff. (%)	Install. (year)	Particles Conc. (gr/ft^3)	Size (micr

NOTES * Provide source of fuel here ** Provide stack outlet height above grade; diameter at outlet

A 10503

PROCESS SURVEY - ENVIRONMENTAL IMPACT ANALYSIS

PROCESS ~~SAFETY~~ ASBESTOS PLANT KING CITY

COMPLETED BY R.O. MARSTEN DATE 3/73

VIII. - LOADING AND PACKAGING

Material	Package Description	Shipped To	
		UCC Plant	Customer
RG 244	10# BAG 3 PLY + 5MIL POLYETHLENE BAG COVER		X
REG PELLETS	50# OR 100# 3 PLY BAG		X
REGULAR AND HI PURITY OPEN	30# OR 40# 3 PLY BAGS SOME 5MIL POLY. OVERWRAP		X
T MIXTURE			
OPEN	40# 3 PLY BAGS		X
PELLETS	50# 3 PLY BAGS		X
ALL BAGS ARE PRESSURE PACKED AND HAVE VENT HOLES. PRODUCT LEAKS THROUGH VENT HOLES AND FILLING SPOUT. NEW PACKER BEING DESIGNED TO ELIMINATE PROBLEM IN SO FAR AS POSSIBLE			

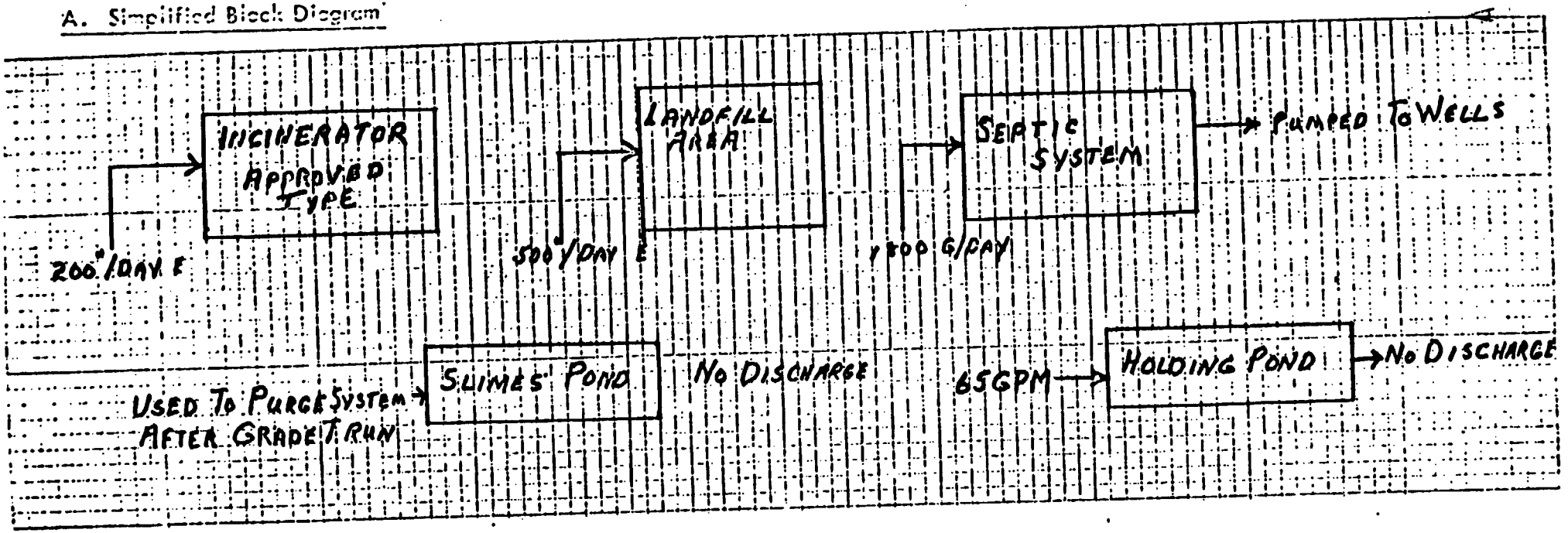
A 10510

ENVIRONMENTAL PROTECTION FACILITIES - ENVIRONMENTAL IMPACT ANALYSIS

Plant KING CITY Completed By R. O. MARSTEN Date 3/73

XIII. - WASTE TREATMENT FACILITIES

A. Simplified Block Diagram



B. Brief Description (Refer to above block diagram)

C. Description of Composite Intake and Discharge Streams

Parameter	Intake		Discharge No. W-	
	Normal	Maximum	Normal	Maximum
Flow (Mlb/day)				
pH				
Temperature (°F) Winter				
Temperature (°F) Summer				
BOD_5 (Mlb/day)				
COD (Mlb/day)				
Total Solids (Mlb/day)				

Union Carbide trial exhibit UC-56: F. H. Larrison, Jr., Process Survey – Environmental Impact Analysis for the King Ci...
Published by AsbestosClaims.Law
asbestosclaims.law/library/15340/16
ACL Doc 15340 : Page 16 of 16