POLY A INDUSTRIAL HYGIENE SAFETY MEETINGS

I ATTENDED THE INDUSTRIAL HYGIENE SAFETY MEETING FOR POLY A THAT COVERED THE FOLLOWING INFORMATION:

THE CONSEQUENCES OF EXPOSURE TO TOXIC AMOUNTS OF CHEMICAL AND PHYSICAL AGENTS.

THE RESULT OF THE EMPLOYEE EXPOSURE MEASUREMENTS AND AREA NOISE SURVEYS FOR 1984.

THE CONTROL MEASURES AVAILABLE TO MINIMIZE EMPLOYEE EXPOSURES.

A Ron Richardson	[illegible]
Joe Acker	[illegible]
[illegible]	[illegible]
[illegible]	Danny Gustin
Ray "Ted" [illegible]	Jim Cook
[illegible]	Evans Barber
[illegible]	Britt [illegible]
[illegible]	[illegible]
[illegible]	John [illegible]
D [illegible]	Joyce L. McMullen
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
Justin H. [illegible] Jr.	"B" [illegible]
[illegible]	Joe [illegible]
Mike Walker	[illegible]
[illegible]	[illegible]
[illegible]	John [illegible]
[illegible]	[illegible]
Dwayne Oubre	[illegible]
	[illegible]
	Brad Martin
	[illegible]
	[illegible] Lee

POLY A INDUSTRIAL HYGIENE SAFETY MEETINGS

I attended the Industrial Hygiene Safety Meeting for Poly A that covered the following information:

The Consequences of exposure to toxic amounts of chemical and physical agents.

The result of the employee exposure measurements and area noise surveys for 1984.

The control measures available to minimize employee exposures.

10/29/85

Don Stockman
Benton Russell
Kelv Martin
Larry Carter
Bradley Morris
Bill Root
Joel Davis
Ed Dukes
Jerry Taylor
Jack Jones
Larry Pearson
Larry Wilson
Lynn Weeks
Wiedy Roberts

DO 088230
CONFIDENTIAL

CONSEQUENCES OF EXPOSURE TO TOXIC AMOUNTS

COMPOUND: SILICA, CRYSTALLINE

EYES: CONTACT WITH DUST CAN CAUSE MECHANICAL IRRITATION SIMILAR TO THAT CAUSED BY ANY SOLID PARTICLE.

SKIN: MECHANICAL INJURY CAN OCCUR.

INHALATION: SHORT TERM: HIGH CONCENTRATIONS (WELL ABOVE ACCEPTABLE LEVELS) MAY CAUSE ONLY MODERATE DISCOMFORT FROM MECHANICAL IRRITATION.

LONG TERM: DUST CAN CAUSE SCARRING OF THE LUNGS (SILICOSIS SYMPTOMS OF OVEREXPOSURE INCLUDE: A REDUCTION IN LUNG FUNCTION, COUGH, DYSPNEA, WHEEZING, A "TIGHTNESS OF CHEST", WEAKNESS, AND REPEATED NONSPECIFIC CHEST ILLNESSES.

COMMENTS: THE MARGIN OF SAFETY FOR THE EXPOSURE LIMIT TO CRYSTALLINE SILICA IS UNKNOWN. EVERY EFFORT SHOULD BE MADE TO MINIMIZE EXPOSURE AS LOW AS CURRENT TECHNOLOGY WILL PERMIT.

EXPOSURE LIMIT: 0.1 MG/M^3 RESPIRABLE MASS
0.3 MG/M^3 TOTAL MASS

REFERENCE: CHEMICAL HAZARDS OF THE WORKPLACE, P., 441-442; TOX REPORT K-6645

AUTHOR: J. R. SANDERS

CHECKED BY: R. L. DANIEL - INDUSTRIAL HYGIENE
R. V. JOHNSTON - TOXICOLOGY
C. K. BROWDY - MEDICAL

ISSUE DATE: 8-14-80

DO 088231
CONFIDENTIAL

POLY A
DUST PERSONNEL SAMPLES

SiO_2 TLV = .1 MG/M^3 RESPIRATORY; .3 MG/M^3 NON-RESPIRATORY
NUISANCE DUST TLV - 10 MG/M^3 TOTAL DUST

JOB	SAMPLE TIME	*POTENTIAL NON-RESP. DUST EXPOSURE	*POTENTIAL RESP. DUST EXPOSURE	SILICA
LABORER	137 MIN.	9.2 MG/M^3	.8 MG/M^3	.2 MG/M^3
LABORER	315 MIN.	.9 MG/M^3	.4 MG/M^3	.05 MG/M^3
LABORER	205 MIN.	.5 MG/M^3	.3 MG/M^3	.08 MG/M^3

* BECAUSE A DUST RESPIRATOR IS WORN WHEN MIXING ADDITIVES THESE ARE POTENTIAL EXPOSURES.

MDR/LTB
5-23-85

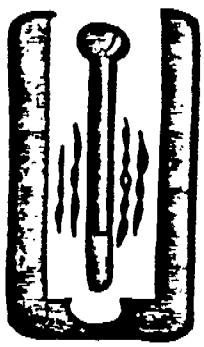
CONSEQUENCES OF EXPOSURE TO TOXIC AMOUNTS

COMPOUND:	ASBESTOS
EYES:	CONTACT WITH THE DUST CAN CAUSE MECHANICAL IRRITATION SIMILAR TO THAT CAUSED BY ANY SOLID PARTICLE.
SKIN:	UNLIKE FIBROUS GLASS, THE FIBERS DO NOT CAUSE DISCOMFORT OR MECHANICAL IRRITATION.
INGESTION:	SOME EVIDENCE SUGGESTS THAT LONG TERM INGESTION OF ASBESTOS MAY INCREASE CHANCES OF STOMACH CANCER.
DUST INHALATION:	SHORT TERM: HIGH CONCENTRATIONS (WELL ABOVE ACCEPTABLE LEVELS) MAY CAUSE ONLY MODERATE DISCOMFORT FROM MECHANICAL IRRITATION. LONG TERM: THE FIBERS CAN CAUSE SCARRING OF THE LUNGS (ASBESTOSIS). A CANCER OF THE CHEST LINING (MESOTHELIOMA) MAY ALSO RESULT FROM ASBESTOS EXPOSURE. MOST IMPORTANT, ASBESTOS EXPOSURE AND CIGARETTE SMOKING GREATLY INCREASE THE RISK OF LUNG CANCER.
IHG:	ACGIH TLV IS 2 FIBERS/CC
AUTHOR:	G. H. FLORES
CHECKED BY:	R. L. DANIEL - INDUSTRIAL HYGIENE G. C. JERSEY - TOXICOLOGY R. E. FLAKE - MEDICAL
ISSUE DATE:	REVISED: 6-6-80

2.2 Thermal Sensitivity

From a safety point of view the thermal sensitivity of an organic peroxide is very important. Most organic peroxides used in the plastics industry are stable at normal ambient temperatures. However, it is possible that at slightly higher temperatures the organic peroxide will start to decompose releasing heat. If the decomposition, which is an exothermic reaction, proceeds so quickly that the heat cannot be dissipated, the product temperature will increase, finally resulting in a self-accelerating decomposition of the organic peroxide. Depending on the circumstances i.e. the quantity, the degree of confinement, the particular organic peroxide etc., fierce decomposition, self-ignition or even a thermal explosion may occur. In the case of a decomposition without flame the vapors evolved are flammable and if ignited can burn explosively.

The polymer industry's need for more reactive organic peroxides has led to the development of a number of products requiring refrigerated storage. These particular organic peroxides can undergo self-accelerating decomposition at normal ambient temperatures or below, so special handling and storage techniques are required. Refer to individual technical bulletins for additional information.



Due to the thermal instability of all organic peroxides they must be stored at recommended temperatures and kept away from all sources of heat such as steam pipes, space heaters and hot materials.

2.3 Contamination

The stability of organic peroxides can be reduced by a wide variety of chemical compounds and metals. Contamination or contact with heavy metals, copper, iron, brass and their compounds, acids, bases and reducing agents must be avoided. Contamination of organic peroxides can result in an explosive decomposition or fire. Special care must be taken to avoid direct contact with accelerators, such as cobalt octoate or dimethyl aniline, used in the reinforced plastics industry to accelerate the cure of unsaturated polyester resins.

2.4 Mechanical Sensitivity

Most commercial organic peroxides have a low degree of mechanical sensitivity to shock, impact or friction which means that they can be handled safely provided that severe friction, rough handling and heavy impact are avoided. Some organic peroxides i.e. dry pure benzoyl peroxide, have a high degree of mechanical sensitivity requiring special handling techniques. Refer to individual product bulletins for additional information.

2.5 Physiological Properties
2.5.1 Ingestion and Inhalation

In general organic peroxides are moderately toxic upon ingestion or inhalation. Owing to their corrosive character some organic peroxides can inflict severe injuries to the digestive organs on ingestion and to the respiratory tract on inhalation of the vapors.

FIRST AID

If an organic peroxide is accidently swallowed, large amounts of water or milk should be drunk, and immediate vomiting induced. Obtain medical attention at once to give additional stomach wash. If prompt medical attention is possible ketone peroxides i.e. Cadox M-105 and hydroperoxides i.e. *Trigonox A-W 70* are better removed by administering large quantities of milk or water and obtaining immediate medical supervised lavage (stomach wash) due to their corrosive nature. If on inhalation a toxic effect like headache, sleepiness or nausea is observed, seek fresh air immediately. In case of narcosis the person involved should be moved to fresh air, clothing loosened and given 24 hours rest under medical supervision.

2.5.2 Contact with the Eyes

Most organic peroxides are very corrosive to the eyes. Ketone peroxides i.e. Cadox M-105 and hydroperoxide i.e. Trigonox A-W 70 are particularly aggressive, causing extensive damage which may lead to blindness. On the other hand benzoyl peroxide will normally cause only temporary damage after short contact. **Safety glasses must be worn when handling organic peroxides.**

FIRST AID

If organic peroxide gets into the eye(s) rinse immediately with water for at least 15 minutes. If possible, alternate rinsing with a freshly prepared 5% aqueous sodium ascorbate or 2% aqueous sodium bicarbonate solution. Call a physician immediately.

2.5.3 Contact with the Skin

Owing to the corrosive character of many peroxides, direct contact with the skin must be avoided. Prolonged contact with even less corrosive organic peroxides such as benzoyl peroxide may lead to an allergic irritation. Always use protective gloves. Contaminated clothing should be removed immediately and laundered before using again.

FIRST AID

If an organic peroxide comes in contact with the skin rinse immediately with water and wash thoroughly with soap. If irritated apply an ointment such as lanolin. If irritation persists contact a physician.

Refer to individual product bulletins and SPI Toxilogical Data Bulletin for specific toxicity data.

POLY A
T-BUTYL PEROXYPIVILATE PERSONNEL SAMPLES

JOB	SAMPLE TIME	CONCENTRATION DETECTED
CATALYST MIXER	22 MIN.	1.1 PPM
CATALYST MIXER	12 MIN.	1.6 PPM
CATALYST MIXER	23 MIN.	1.6 PPM
CATALYST MIXER	15 MIN.	1.6 PPM

T-BUTYL PERACETATE PERSONNEL SAMPLES

JOB	SAMPLE TIME	CONCENTRATION DETECTED
CATALYST MIXER	10 MIN.	2.9 PPM
CATALYST MIXER	12 MIN.	1.4 PPM
CATALYST MIXER	7 MIN.	8.6 PPM
CATALYST MIXER	16 MIN.	1.4 PPM

MDR/cs
12-28-84

CONSEQUENCES OF OVER-EXPOSURE

COMPOUND: NOISE

PROLONGED AND REPEATED EXPOSURE TO LEVELS EXCEEDING 90 dB-A MAY CAUSE SEVERE DAMAGE TO THE NERVES IN THE INNER EAR.

THE INITIAL EFFECT IS TO REDUCE THE ABILITY TO HEAR SOUNDS IN THE HIGH FREQUENCY RANGE.

IF UNCHECKED, THE HEARING LOSS CAN EXTEND TO THE FREQUENCIES IN THE NORMAL SPEECH RANGE.

METHODS OF CONTROL

DIHG - 85 dB-A - TO PREVENT HEARING LOSS FOR EXPOSURES OF MORE THAN 8 HOURS PER DAY.

POLY A
NOISE DOSIMETER SAMPLES

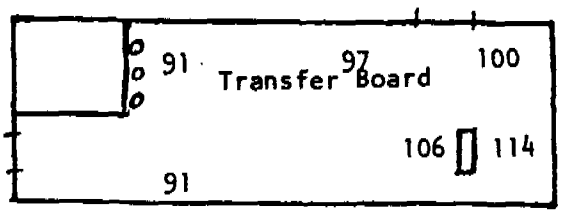
Job	Number of Samples	Potential Avg. Noise Dose*	Potential Highest Noise Dose
Technical	3	20%	38%
Instrument	2	20%	38%
Day Maintenance	3	56%	100%
Shift Supervisor	3	230%	404%
Relief S.O.T.	2	142%	152%
Train 5 S.O.T.	3	664%	936%
Little Building S.O.T.	3	106%	110%
Big Building S.O.T.	4	122%	192%
Transfer Board S.O.T.	2	32%	38%
Extrusion S.O.T.	2	100%	134%
Catalyst Mixer	4	44%	60%

* Because ear protection was worn in the high noise areas, these are potential exposures.

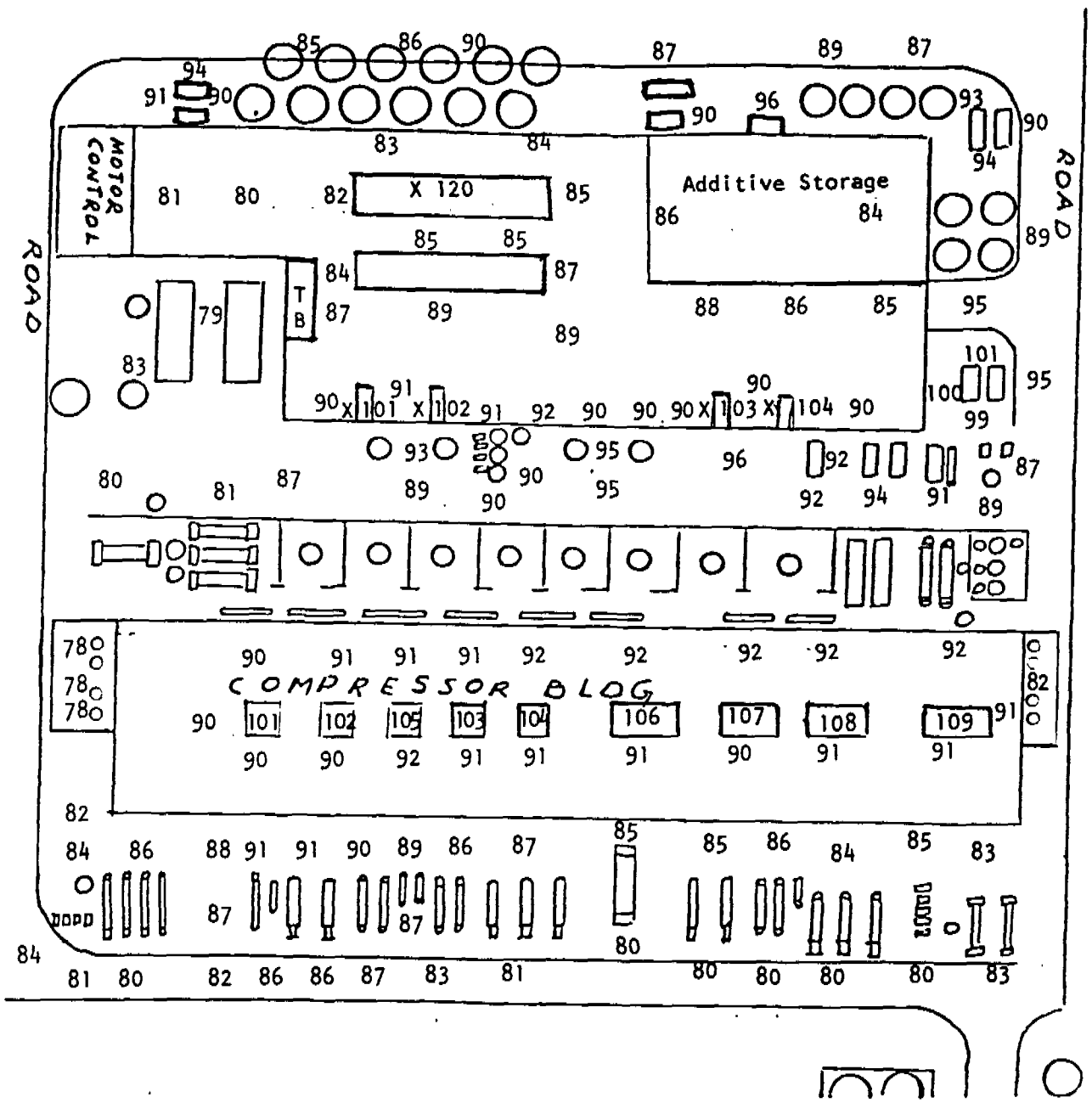
MDR/LTB
5-23-85

EXTRUSION AND COMPRESSOR BUILDINGS - 803

NOISE LEVELS db(A)



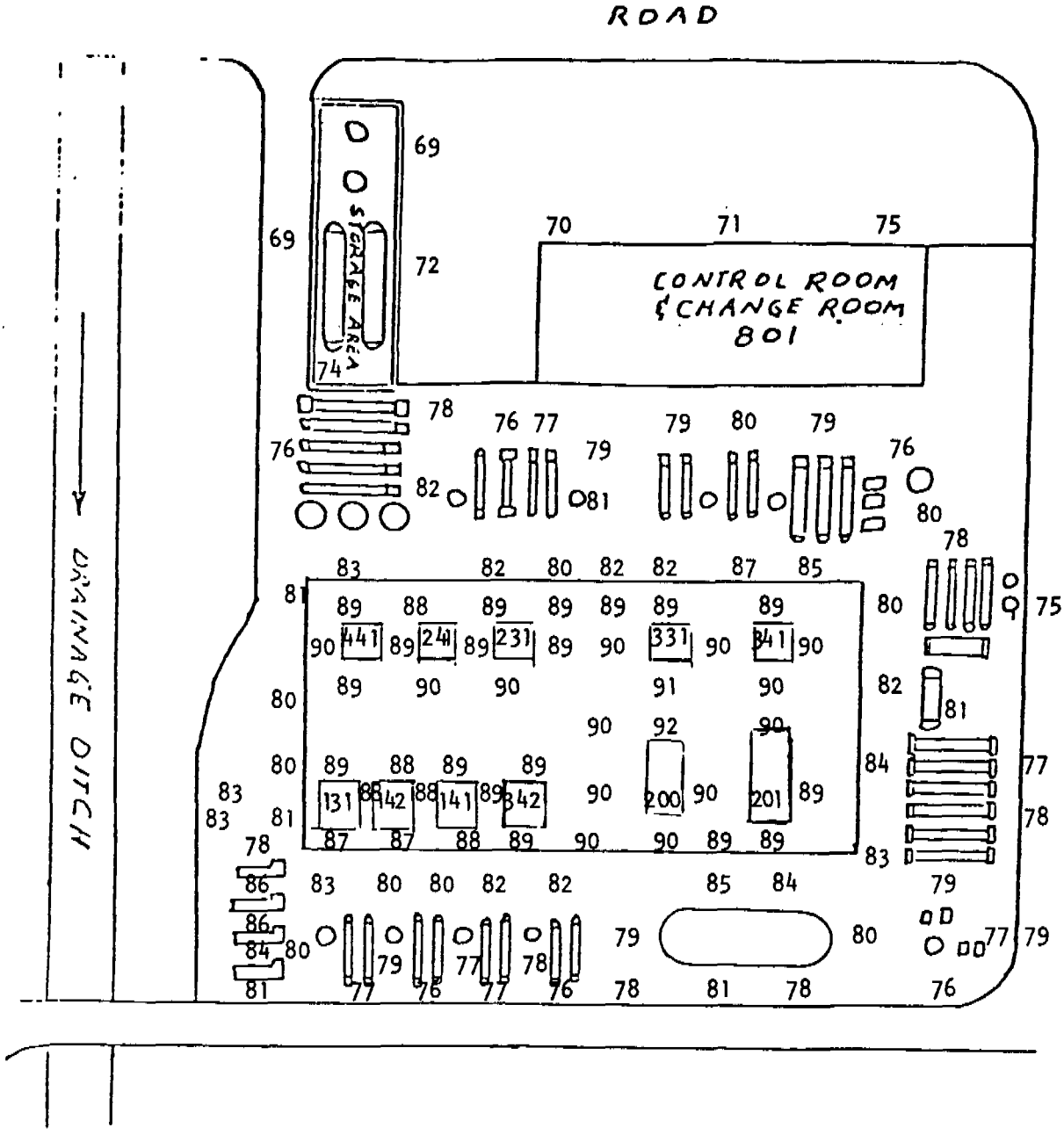
Transfer Board Readings were taken when transferring pellets from the spec count table.



DO 088239
CONFIDENTIAL

PRIMARY COMPRESSOR BUILDINGS

NOISE LEVELS db(A)



DO 088240
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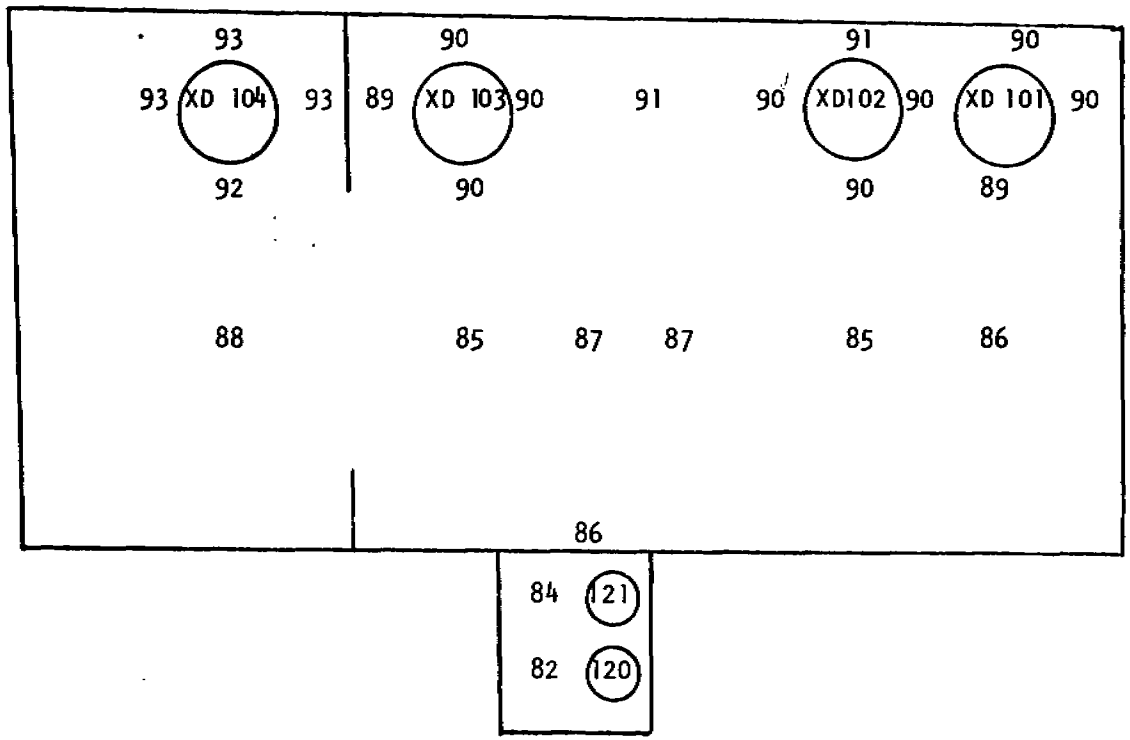
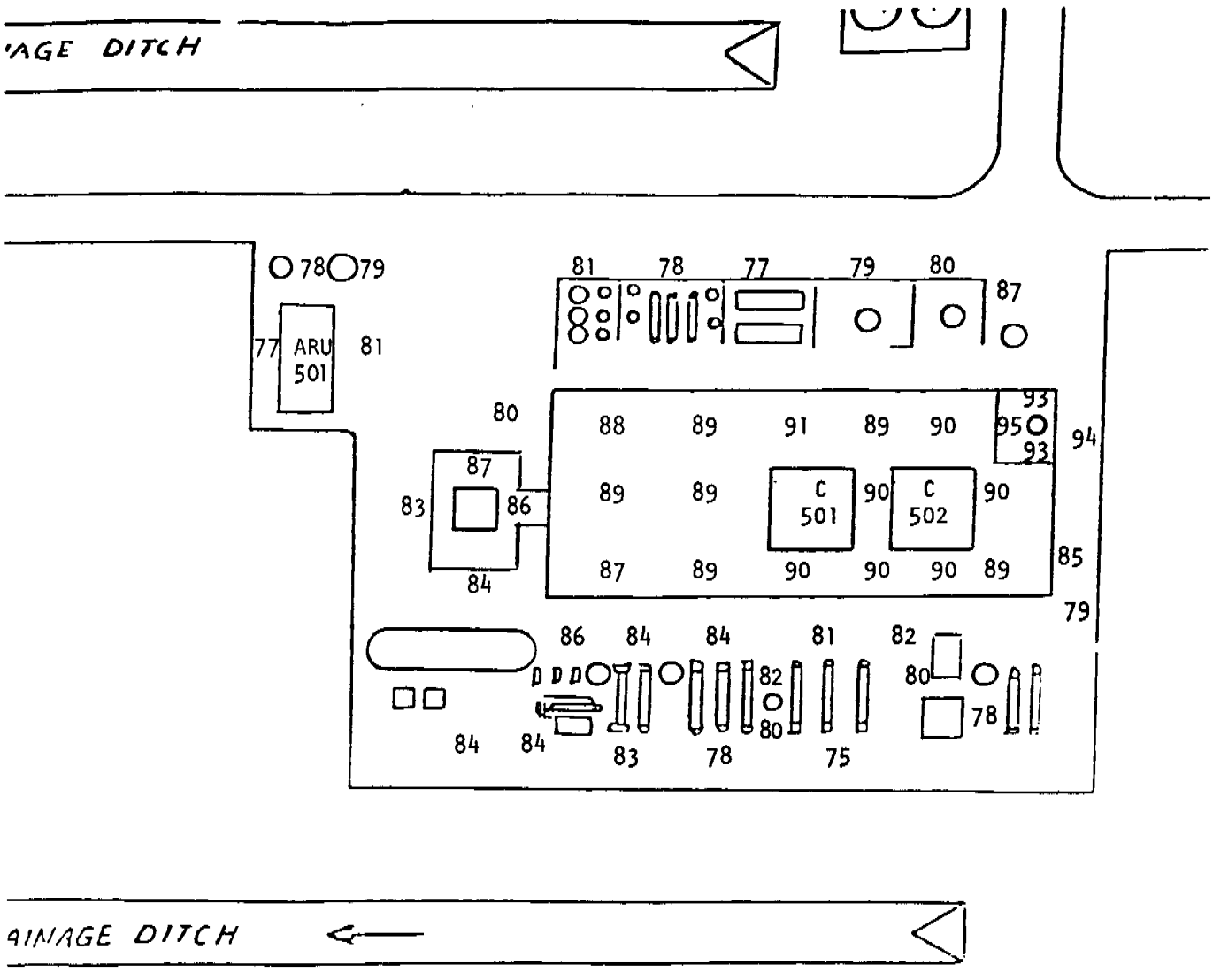
CLASSIFIER SCREEN AREA



TRAIN 5 COMPRESSOR AREA

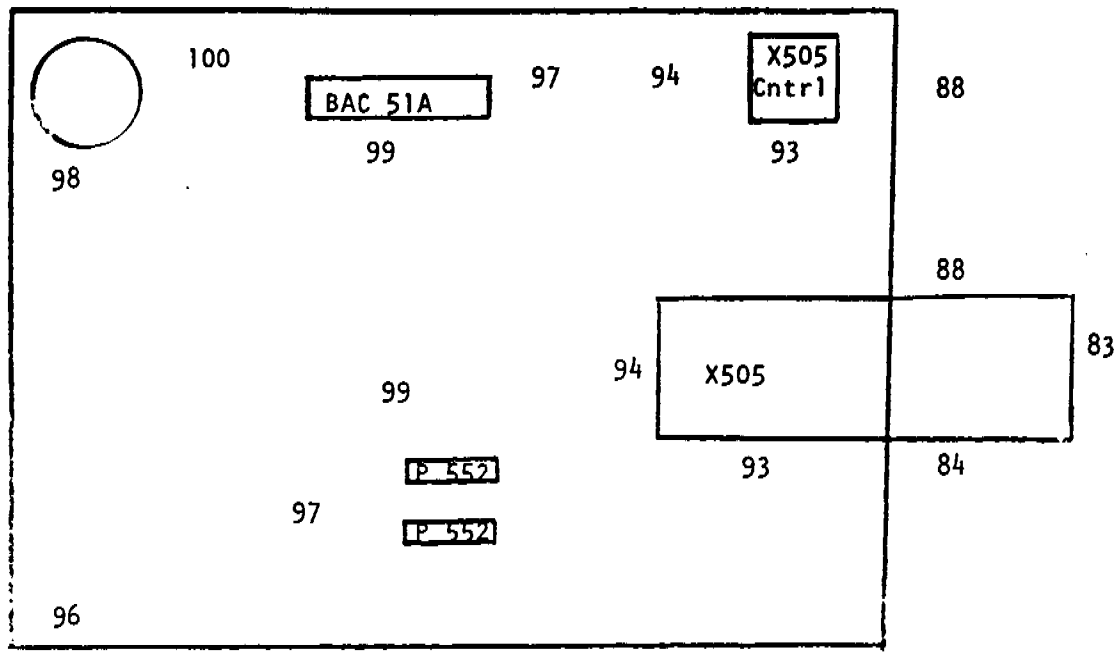
NOISE LEVELS db(A)

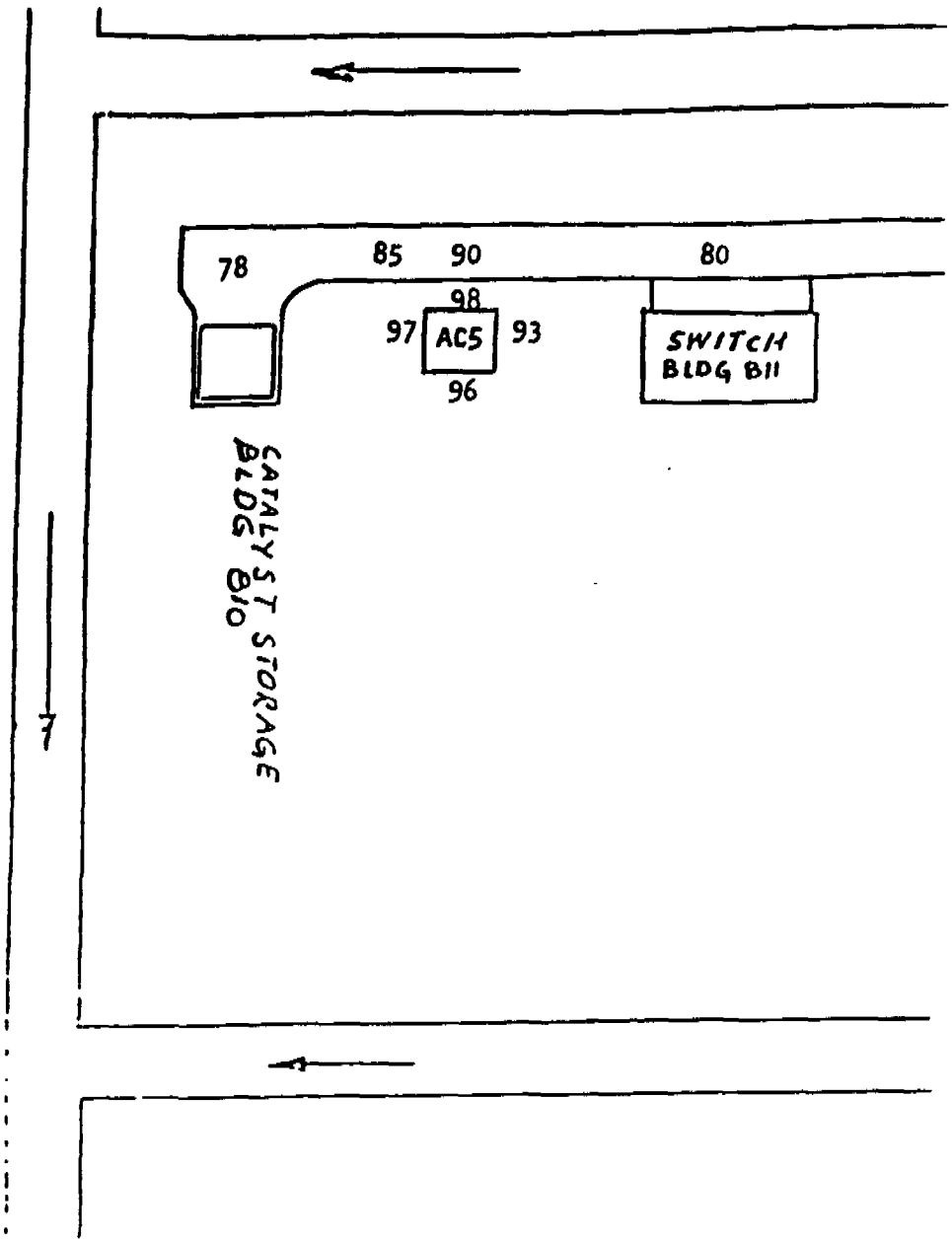


DO 088242
CONFIDENTIAL

TRAIN 5 EXTRUSION AREA

NOISE LEVELS db(A)




78
85
90
98
80
97
AC5
93
96
SWITCH
BLDG B11
CATALYST STORAGE
BLDG B10

1984 POLY A
INDUSTRIAL HYGIENE QUIZ

1. WHAT IS TINNITUS?

TINNITUS IS HEAD NOISES THAT FREQUENTLY ARE A SYMPTOM OF VARIOUS EAR DISEASES. PERSONS WITH IMPAIRED HEARING OFTEN COMPLAIN OF IT. BUT THESE HEAD NOISES CAN BE THE RESULT OF MANY THINGS SUCH AS MIDDLE EAR INFECTIONS, HARD MASSES OF WAX IN THE EARS AND EVEN CERTAIN DRUGS (QUININE, ASPIRIN AND ALCOHOL).

2. WHAT IS THE MAJOR PROBLEM EXPERIENCED BY PERSONS WITH A HEARING LOSS FROM NOISE EXPOSURE?

MISSING PARTS OF WORDS AND SENTENCES SO THAT THEY OFTEN MISUNDERSTAND WHAT IS BEING SAID.

3. DO HEARING AIDS CORRECT THIS TYPE OF HEARING LOSS?

NO! HEARING AIDS AMPLIFY THE SOUND BUT DOES NOT MAKE IT CLEARER. EAR PROTECTION TO PREVENT OVEREXPOSURE IS YOUR BEST BET!

4. IN ORDER FOR A HARMFUL AGENT TO EXERT ITS TOXIC EFFECT, IT MUST COME INTO CONTACT WITH A BODY CELL. TO MAKE THAT CONTACT, ENTRY INTO THE BODY MUST BE MADE IN ONE OF THREE WAYS. WHAT ARE THEY?

INHALATION --------- SKIN ABSORPTION ---------- INGESTION

5. WHAT IS THE DIFFERENCE BETWEEN TOXICITY AND HAZARD?

TOXICITY IS THE CAPACITY OF A MATERIAL TO PRODUCE INJURY OR HARM.

HAZARD IS THE LIKLIHOOD THAT HARM OR INJURY WILL OCCUR.

6. NAME THREE SIMPLE ASPHYXIANTS WE USE IN POLY A.

ETHYLENE ---------- NITROGEN ---------- PROPYLENE

7. WHAT SUBSTANCE DO WE USE IN POLY A THAT CAN CAUSE ACNE?

PETROLEUM OILS

8. IN WHAT SECTION OF THE SAFE WORK MULTI-PERMIT IS REFERENCE MADE TO SPECIAL EXPOSURE TO PROTECT AGAINST.

SECTION I, GENERAL WORK PERMIT

MDR/LTB
12-31-84

SAFE WORK MULTI-PERMIT

LOUISIANA DIVISION

Issued By: _____ Date: _____

Accepted By: _____ Time: From ____ a.m. ____ p.m.

Responsibility Transferred To (Name): _____ To ____ a.m. ____ p.m.

Plant Supt. Signature (If Required): _____ REV. 1/88 L307-88

Complete Section I on all permits. Completion of Section I ONLY indicates that work is controlled by departmental procedures. Completion of Sections II, III and/or IV requires an On-Site Inspection.

SECTION I GENERAL WORK, PROCESS

1. Work Limited to the Following: (Description & Area/Equipment) _____

2. The Following Has Been Reviewed with Job Supervisor:
   - A. Safety Shower, Eye Wash - Location & Use ☐ Yes ☐ N. A.
   - B. Emergency Alarms, Evacuation, Assembly Point ☐ Yes
   - C. Procedure for Safe Job Completion ☐ Oral ☐ Written
   - D. Have tools & equip. of outside contractors been inspected ☐ Yes ☐ N. A.
   - E. Have all contract personnel received the Maint. & Block Safety Orientation ☐ Yes ☐ N. A.

3. An On-Site Inspection Conducted ☐ Yes ☐ No Initials of Inspector _____

4. Special Exposure to Protect Against: ☐ None
   Chemical (name): _____
   ☐ Flammable ☐ Corrosive ☐ Pressure Extreme ☐ Falls
   ☐ Toxic ☐ Reactive ☐ Thermal Burn ☐ Electrical
   ☐ Skin Contact ☐ Hot Water/Steam ☐ Other: _____
   ☐ Inert Atmosphere

5. Safety Equipment: (Other than area requirements): ☐ None
   ☐ Slicker Suit ☐ Chemical Goggles ☐ Canister Mask
   ☐ Chemical Suit ☐ Face Shield ☐ Supplied Air
   ☐ Rubber Boots ☐ Hood ☐ Air Pack
   ☐ Gloves ☐ Safety Belt ☐ Other: _____
   ☐ Hearing Protection

SECTION II OPENING LINES, EQUIPMENT OR EXCAVATIONS

Complete this Section and Section I for Opening Lines Equipment/Excavations.

		Yes	N.A.
1.	Equipment Drained/Depressured	☐	☐
2.	Equipment Purged/Cleaned	☐	☐
3.	Fuses Removed/Switches open	☐	☐
4.	Lock Required (List on Red Tag Master)	☐	☐
5.	Field Switches Tested	☐	☐
6.	Red Tags Attached (Refer SS-303) (Master # _____)	☐	☐
7.	Adjacent Area Safe (If Limited Describe Below)	☐	☐
8.	Area Roped Off	☐	☐
9.	Blinds/Block & Bleed in place (List blinds on Red Tag Master)	☐	☐
10.	Excavation Safe to Perform (Refer SS-301)	☐	☐
11.	Blue Flag in use on RR Tracks (Refer SS-306)	☐	☐

SECTION III HOT WORK

Complete this Section and Sections I and II for Hot Work (Refer SS-313)

		Yes	No
1.	Safety Observer (Name) _____	☐	☐
2.	Fire Extinguishers: Type: _____ Size _____	☐	☐
3.	Fire Blankets (Location) _____	☐	☐
4.	Water Fog (Location) _____	☐	☐
5.	Purge (Gas Used) _____	☐	☐
6.	Heat Exposure to Gasket, Seals, Liners, (Describe Precautions)	☐	☐
7.	Other Work in Area which should be Stopped (Describe Below)	☐	☐
8.	Material Present which Emits Vapor when Heated (Describe Below)	☐	☐
9.	Pipe stoppers in Use (Refer Safety Ref. # A-6)	☐	☐
10.	Equipment Operating or Contains original Contents (If Yes, written procedures are required & Plant Supt. must Co-Sign Permit)	☐	☐
11.	Adjacent Areas Safe (If Limited Describe Below)	☐	☐
12.	Explosimeter, Oxygen Tests Acceptable	☐	☐

DO 088247
CONFIDENTIAL

ISOPAR C (EXXON)

STUDY DONE ON ISOPAR G BUT APPLICABLE TO OTHER ISOPARS

ACUTE TOXICITY

LOW ORAL TOXICITY

LOW DERMAL TOXICITY

LC_{50} (RAT) - 2240 PPM, 4 HOUR EXPOSURE, 14 DAYS

DERMAL

RABBITS PRIMARY IRRITANT (MILD)

HUMAN PRIMARY IRRITANT PARTICULARLY WHEN OCCLUDED

EYE

ONLY SLIGHTLY IRRITATING - CAUSED NO DAMAGE

SUBCHRONIC INHALATION

AT 900 PPM - KIDNEY TUBULAR DAMAGE IN MALE RATS ONLY

MALE RAT MAY BE MORE SENSITIVE

TERATOGEN - NEITHER TERATOGENIC OR FETOTOXIC

DOMINANT LETHAL - NEGATIVE

NO EFFECT ON MALE GENITALIA

CHEMICAL AND PHYSICAL AGENT INVENTORY

Woody Roberts	Poly A	807
MARK Ryland	12/85	
Computer		

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	* DEGREE OF EXPOSURE	** HAZARD RATING	DATA SHEET AVAILABLE
Process chemicals				
Ethylene		I	5	
Isobutane		I	5	
Propylene		I	5	
Catalyst Components			5	
Isopar C		I	5	
Tert-butyl Peracetate		I	5	
Tert butyl Peroctoate		I	5	
Tert butyl Peroxypivilate		I	5	
ADDitives:				
calcium carbonate		I	5	
Ionol		I	5	
Irganox 1010		I	5	
Irganox 1076		I	5	
Kemamide "E"		I	5	
Kemamide "S"		I	5	
Kemamide "U"		I	5	
Mineral Oil		I	5	
Narmaco		I	5	
Snowflake (Silicon dioxide)		I	5	
Zinc Stearate		I	5	
Product:				
Low Density Polyethylene		I	5	
Non-Process Chemicals.				
Alpha 1015		I	5	
Alpha 2026		I	5	
Ref- Corr-Shield (K-9)		I	5	
Beta Slimicide (T-12)		I	5	
Genetron (Freon)		I	5	
Isoparm		I	5	

DO 088249
CONFIDENTIAL

* See Industrial Hygiene Data Sheet.

** To be filled in by Industrial Hygiene.

FORM M-47710 PRINTED 8-10-74

CHEMICAL AND PHYSICAL AGENT INVENTORY

[illegible] NAME	PLANT	
FILLED OUT BY	DATE	
JOB CLASSIFICATION	INDEX NUMBER	NO. OF EMPLOYEES IN CLASSIFICATION

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	* DEGREE OF EXPOSURE	** HAZARD RATING	DATA SHEET AVAILABLE
NON Process Chemicals used:				
John Crane Lapping Vehicle		I	5	
Lithium Bromide		I	5	
Line Lube / Grease		I	5	
Weathercraft (Antifreeze)		I	5	
Nitrogen		I	5	
Clorox (Sodium Hypochlorite)		I	5	
Physical Agents:				
Cesium 137 (level detection)		I	5	
Heat		I	5	
Noise		II	4	
Ultraviolet Light		I	5	
By-Products:				
Waste Catalyst		I	5	
Insert this section after Products on 1st page.				

DO 088250
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* See Industrial Hygiene Data Sheet.

** To be filled in by Industrial Hygiene.

FORM M-47710 PRINTED 8-10-74

CHEMICAL AND PHYSICAL AGENT INVENTORY

Woody Roberts	Poly A	807
Mark Ryland	12/85	
JANitor		

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	DEGREE OF EXPOSURE *	HAZARD RATING **	DATA SHEET AVAILABLE
Process chemicals				
Ethylene		I		
Isobutane		I		
Propylene		I		
Catalyst Components				
Isopar C		II		
Tert. butyl Peracetate		I		
Tert butyl Peroctoate		I		
Tert butyl Peroxypivalate		I		
ADDitives:				
Calcium carbonate		II		
Ionol		II		
Irganox 1010		II		
Irganox 1076		II		
Kemamide "E"		II		
Kemamide "S"		II		
Kemamide "U"		II		
Mineral Oil		II		
Naxsand		II		
Superfloss (Silicon dioxide)		II		
Zinc Stearate		II		
Product:				
Low Density Polyethylene		III		
Non-Process Chemicals.				
Alpha 1015		IV ?		
Alpha 2026		IV ?		
Roto Con-Shield (K-9)		I		
Beta Slimicide (J-12)		I		
Genetron (Freon)		I		
Isoparm		I		

DO 088251
CONFIDENTIAL

* See Industrial Hygiene Data Sheet.

** To be filled in by Industrial Hygiene.

FORM M-47710 PRINTED 8-10-74

CHEMICAL AND PHYSICAL AGENT INVENTORY

SUBMITTED BY (NAME) | PLANT

FILLED OUT BY | DATE

JOB CLASSIFICATION | INDEX NUMBER | NO. OF EMPLOYEES IN CLASSIFICATION

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	* DEGREE OF EXPOSURE	** HAZARD RATING	DATA SHEET AVAILABLE
NON Process Chemicals cont'd:				
John Crane Lapping Vehicle		I		
Lithium Bromide		I		
Lube Oils / Greases		I		
Weathercraft (Antifreeze)		I		
Nitrogen		I		
Clorox (Sodium Hypochlorite)		II		
Physical Agents:				
Cesium 137 (level detection)		I		
Heat		II		
Noise		III		
Ultraviolet light		I		
By-Products:				
Waste Catalyst		I		
Insert this section after Products on 1st page.				

DO 088252
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* See Industrial Hygiene Data Sheet.

** To be filled in by Industrial Hygiene.

FORM M-47710 PRINTED 8-10-74

CHEMICAL AND PHYSICAL AGENT INVENTORY

ESTABLISHMENT NAME	PLANT	
Woody Roberts	Poly A	807
FILLED OUT BY	DATE	
Mark Ryland	12/85	

JOB CLASSIFICATION	INDEX NUMBER	NO. OF EMPLOYEES IN CLASSIFICATION
Dry Maintenance		

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	* DEGREE OF EXPOSURE	** HAZARD RATING	DATA SHEET AVAILABLE
Process chemicals				
Ethylene		II		
Isobutane				
Propylene				
Catalyst Components				
Isopar C		II		
Tert-butyl Peracetate		III		
Tert butyl Peroctoate		III		
Tert butyl Peroxypivilate		III		
ADDitives:				
calcium carbonate				
Irganox 1010				
Irganox 1076				
Kemamide "E"				
Kemamide "S"				
Kemamide "U"				
Mineral Oil				
Naugard				
Super Floss (Silicon dioxide)				
Zinc Stearate				
Product:				
Low Density Polyethylene		IV		
Non-Process chemicals.				
Alpha 1015				
Alpha 2026 (2044)				
Rely Con-Shield (K-9)				
Beta Slimicide (CJ-12)				
Genetron (Freon)			DO 088253 CONFIDENTIAL	
Isopar M		IV		

* See Industrial Hygiene Data Sheet.

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FORM M-47710 PRINTED 8-10-74

CHEMICAL AND PHYSICAL AGENT INVENTORY

[illegible] NAME	PLANT	
FILLED OUT BY	DATE	
JOB CLASSIFICATION	INDEX NUMBER	NO. OF EMPLOYEES IN CLASSIFICATION

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	* DEGREE OF EXPOSURE	** HAZARD RATING	DATA SHEET AVAILABLE
NON Process Chemicals cont'd:				
John Crane Lapping Vehicle				
Lithium Bromide				
Lube Oils / Greases		II		
Weathercraft (Antifreeze)				
Nitrogen				
Clorox (Sodium Hypochlorite)				
Physical Agents:				
Cesium 137 (level detection)				
Heat				
Noise		II		
Ultraviolet Light				
By-Products:				
Waste Catalyst				
→ Insert this section after Products on 1st page.				

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* See Industrial Hygiene Data Sheet.

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FORM M-47710 PRINTED 8-10-74

CHEMICAL AND PHYSICAL AGENT INVENTORY

Woody Roberts	Poly A	807
MARK Ryland	12/85	
Maintenance / Contract		

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	DEGREE OF EXPOSURE *	HAZARD RATING **	DATA SHEET AVAILABLE
Process chemicals				
Ethylene		II		
Isobutane		II		
Propylene		II		
Catalyst components				
Isopar C		II		
Tert-butyl Peracetate		I		
Tert butyl Peroctoate		I		
Tert butyl Peroxypivalate		I		
ADDitives:				
Calcium carbonate		I		
Ionol		I		
Irganox 1010		I		
Irganox 1076		I		
Kemamide "E"		I		
Kemamide "S"		I		
Kemamide "U"		I		
Mineral Oil		I		
Naugard		I		
Super Floss (Silicon dioxide)		I		
Zinc Stearate		I		
Products				
Low Density Polyethylene		II		
Non-Process chemicals.				
Alpha 1015		I		
Alpha 2026		I		
Rely Con-Shield (K-9)		I		
Beta Slimicide (J-12)		I		
Genetron (Freon)		I		
Isoparm		II		

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* See Industrial Hygiene Data Sheet.

** To be filled in by Industrial Hygiene.

FORM M-47710 PRINTED 8-10-74

CHEMICAL AND PHYSICAL AGENT INVENTORY

BUILDING NAME | PLANT

FILLED OUT BY | DATE

JOB CLASSIFICATION | INDEX NUMBER | NO. OF EMPLOYEES IN CLASSIFICATION

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	* DEGREE OF EXPOSURE	** HAZARD RATING	DATA SHEET AVAILABLE
Non Process Chemicals cont'd:				
John Crane Lapping Vehicle		III		
Lithium Bromide		I		
Lube Oils / Greases		III		
Weathercit (Antifreeze)		I		
Nitrogen		II		
Clorox (Sodium Hypochlorite)		II		
Physical Agents:				
Cesium 137 (level detection)		I		
Heat		III		
Noise		IV		
Ultraviolet light		I		
By-Products:				
Waste Catalyst		I		

Insert this section after Products on 1st page.

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* See Industrial Hygiene Data Sheet.

** To be filled in by Industrial Hygiene.

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CHEMICAL AND PHYSICAL AGENT INVENTORY

PLANT INTEREST NAME: Woody Roberts	PLANT: Poly A	Reviewed	1985 807
FILLED OUT BY: Mark Ryland			
JOB CLASSIFICATION: Shift Supervisor	INDEX NUMBER	NO. OF EMPLOYEES IN CLASSIFICATION	

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	* DEGREE OF EXPOSURE	** HAZARD RATING	DATA SHEET AVAILABLE
Process chemicals				
Ethylene		II	5	
Isobutane		I	5	
Propylene		I	5	
Catalyst components				
Dimp C		I	5	
T. t Butyl Perolate		I	5	
Tert Butyl Peroctoate		I	5	
Tert Butyl Peroxypivalate		I	5	
ADDitives:				
Calcium Stearate		I	5	
[illegible]		I	5	
[illegible]		I	5	
Hydrol 376		I	5	
Kemamide "E"		I	5	
[illegible]		I	5	
Kemamide "U"		I	5	
[illegible]		I	5	
[illegible]		I	5	
Silica (Amorphous dioxide)		I	5	
Zinc Stearate		I	5	
Catalyst:				
[illegible]		II	5	
Non-Process Chemicals				
Alpha 1015		I	5	
Alpha [illegible]		I	5	
Lab. Con-Shield (-4)		I	5	
Lab. Silmasil (J-12)		I	5	
Cimarron (Freon)		I	5	DO 088257 CONFIDENTIAL
Isopar M		I	5	

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CHEMICAL AND PHYSICAL AGENT INVENTORY

SUPERINTENDENT NAME	PLANT	

FILLED OUT BY	DATE

JOB CLASSIFICATION	INDEX NUMBER	NO. OF EMPLOYEES IN CLASSIFICATION

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	* DEGREE OF EXPOSURE	** HAZARD RATING	DATA SHEET AVAILABLE
Non Process chemicals cont'd:				
John Crane Lapping Vehicle		I	5	
Lithium Bromide		II	4	
Lube Oils / Greases		I	5	
Weathercraft Antifreeze		I	5	
Nitrogen		I	5	
Clorox (Sodium Hypochlorite)		I	5	
Physical Agents:				
Cesium 137 (level detection)		I	5	
Heat		I	5	
Noise		IV	3	
Ultraviolet light		I	5	
By-Products:				
Waste Catalyst		I	5	
Insert this section after Products on 1st page				

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* See Industrial Hygiene Data Sheet.
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CHEMICAL AND PHYSICAL AGENT INVENTORY

SUPERINTENDENT NAME	PLANT	
Woody Roberts	Poly A	807

FILLED OUT BY	DATE
MAIK Ryland	12/85

JOB CLASSIFICATION	INDEX NUMBER	NO. OF EMPLOYEES IN CLASSIFICATION
SOT – B-802		

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	* DEGREE OF EXPOSURE	** HAZARD RATING	DATA SHEET AVAILABLE
Process chemicals				
Ethylene		II	5	
Isobutane		II	5	
Propylene		II	5	
Catalyst components				
Isopar C		II	4	
Tert-butyl Peracetate		I	5	
Tert butyl Peroctoate		I	5	
Tert butyl Peroxypivilate		I	5	
ADDitives:				
Calcium carbonate		I	5	
Irnol		I	5	
Irganox 1010		I	5	
Irganox 1076		I	5	
Kemamide "E"		I	5	
Kemamide "S"		I	5	
Kemamide "U"		I	5	
Mineral Oil		I	5	
Naugard		I	5	
Sup. Floss (Silicon dioxide)		I	5	
Zinc Stearate		I	5	
Product:				
Low Density Polyethylene		I	5	
Non-Process chemicals.				
Alpha 1015		II		
Alpha 202.6		III		
Bel-Con-Shield (K-9)		I	5	
Bel-Slimicide (J-12)		I	5	
Genetron (Freon)		I	5	
Isoparm		IV		

(products see next page)

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** To be filled in by Industrial Hygiene.

CHEMICAL AND PHYSICAL AGENT INVENTORY

SUBSIDIARY NAME	PLANT	

FILLED OUT BY	DATE

JOB CLASSIFICATION	INDEX NUMBER	NO. OF EMPLOYEES IN CLASSIFICATION

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	* DEGREE OF EXPOSURE	** HAZARD RATING	DATA SHEET AVAILABLE
NON Process Chemicals cont'd:				
John Crane Lapping Vehicle		I	5	
Lithium Bromide		I	5	
Lube Oils / Greases		III	5	
Weather-it - Antifreeze		I	5	
Nitrogen		I	5	
Clorox (Sodium Hypochlorite)		I	5	
Physical Agents:				
Cesium 137 (level detection)		I	5	
Heat		I	5	
Noise		IV	3	
Ultraviolet light		I	5	
By-Products:				
Waste Catalyst		I	5	

Insert this section after Products on 1st page.

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* See Industrial Hygiene Data Sheet.

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CHEMICAL AND PHYSICAL AGENT INVENTORY

EMPLOYEE'S NAME	PLANT	
Wood, Roberts	Poly A	807
FILLED OUT BY	DATE	
Mack Ryland	12/85	
JOB CLASSIFICATION	INDEX NUMBER	NO. OF EMPLOYEES IN CLASSIFICATION
Instrument		

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE (ppm or mg/m³)	DEGREE OF EXPOSURE *	HAZARD RATING **	DATA SHEET AVAILABLE
Process chemicals				
Ethylene		II		
Isobutane		II		
Propylene		II		
Catalyst Components				
Isopar C		I		
Tert-butyl Peracetate		I		
Tert butyl Peroctoate		I		
Tert butyl Peroxypivilate		I		
ADDitives:				
Calcium carbonate		I		
Irgonox 1010		I		
Irgonox 1076		I		
Kemamide "E"		I		
Kemamide "S"		I		
Kemamide "U"		I		
Mineral Oil		I		
Nawsaw		I		
Sup-Floss (Silicon dioxide)		I		
Zinc Stearate		I		
Product				
Low Density Polyethylene		II		
Non-Process chemicals.				
Alpha 1015		I		
Alpha 2026		I		
Rid-Con-Shield (K-9)		I		
Beta Slimicide (T-12)		I		
Genetron (Freon)		I		
Isopar M		I		

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* See Industrial Hygiene Data Sheet.

** To be filled in by Industrial Hygiene.

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CHEMICAL AND PHYSICAL AGENT INVENTORY

[illegible]	[illegible]	
FILLED OUT BY	DATE	
JOB CLASSIFICATION	INDEX NUMBER	NO. OF EMPLOYEES IN CLASSIFICATION

MATERIALS OR PHYSICAL AGENTS	INDUSTRIAL HYGIENE GUIDE ppm or mg/m³	* DEGREE OF EXPOSURE	** HAZARD RATING	DATA SHEET AVAILABLE
NON Process Chemicals cont'd:				
John Crane Lapping Vehicle		I		
Lithium Bromide		I		
Lube Oils / Greases		I		
Weathers-ft (Antifreeze)		I		
Nitrogen		II		
Clorox (Sodium Hypochlorite)		I		
Physical Agents:				
Cesium 137 (level detection)		I		
Heat		III		
Noise		IV		
Ultraviolet light		I		
By-Products:				
Waste Catalyst		I		
Insert this section after Products on 1st page				

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* See Industrial Hygiene Data Sheet.

** To be filled in by Industrial Hygiene.

FIGURE 8

HOOD SURVEY DATA

FILE NUMBER	BUILDING NUMBER 807	DATE 7/10/85	TYPE OF HOOD UAB Fume Ventilation Hood
HOOD LOCATION, DESIGNATION	Poly O LAB - East WALL		
INTERNAL BAFFLE?	EXTERNAL BAFFLE?	CHEMICALS HANDLED IN THIS HOOD	Hexane + Xylenes, HDPE
OTHER HOODS CONNECTED TO THE SAME EXHAUST SYSTEM			
SOURCES OF AIR DISTURBANCE EXTERNAL TO THIS HOOD			
STATIC PRESSURE IN. WATER	REMARKS	Smoke observations indicate hood is functioning adequately	

RECOMMENDED MEAN FACE VELOCITY FOR THIS HOOD _____ F. P. M., DOOR OPEN _____ IN.

RECOMMENDED EXHAUST RATE FOR THIS HOOD _____ C. F. M.

120	125	115
110	100	110
110	110	125

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HOOD CONDITIONS DURING THE SURVEY

	MAXIMUM	MINIMUM	MEAN	VARIANCE (s_n^2)
ACTUAL FACE VELOCITIES	_____ F.P.M.	_____ F.P.M.	_____ F.P.M.	_____
HOOD FACE AREA DURING SURVEY	_____ SQ. FT.			
EXHAUST RATE DURING SURVEY	_____ C.F.M.			

MAXIMUM OPENING: HEIGHT _____ IN., WIDTH _____ IN. MAXIMUM HOOD FACE AREA _____ SQ. FT.

INSTRUMENT USED FOR AIR VELOCITY MEASUREMENTS	SERIAL NUMBER	SURVEYOR

FIGURE 8

HOOD SURVEY DATA

FILE NUMBER	BUILDING NUMBER	DATE	TYPE OF HOOD
	801-Poly Lab 39	7/15/65	LAB Fume Ventilation
HOOD LOCATION, DESIGNATION	Poly 0 LAB - West WALL		
INTERNAL BAFFLE?	EXTERNAL BAFFLE?	CHEMICALS HANDLED IN THIS HOOD	Carbon disulfide
OTHER HOODS CONNECTED TO THE SAME EXHAUST SYSTEM			
SOURCES OF AIR DISTURBANCE EXTERNAL TO THIS HOOD			
STATIC PRESSURE IN. WATER	REMARKS	Smoke observations indicate	
1 1/2 in. face velocity adequately			

RECOMMENDED MEAN FACE VELOCITY FOR THIS HOOD _____ F. P. M., DOOR OPEN _____ IN.

RECOMMENDED EXHAUST RATE FOR THIS HOOD _____ C. F. M.

150	160	150
130	100	105
140	100	120

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HOOD CONDITIONS DURING THE SURVEY

	MAXIMUM	MINIMUM	MEAN	VARIANCE (s_n^2)
ACTUAL FACE VELOCITIES	_____ F.P.M.	_____ F.P.M.	_____ F.P.M.	_____
HOOD FACE AREA DURING SURVEY	_____ SQ. FT.			
EXHAUST RATE DURING SURVEY	_____ C.F.M.			

MAXIMUM OPENING: HEIGHT _____ IN., WIDTH _____ IN. MAXIMUM HOOD FACE AREA _____ SQ. FT.

INSTRUMENT USED FOR AIR VELOCITY MEASUREMENTS	SERIAL NUMBER	SURVEYOR

FORM C-1250 PRINTED IN U.S.A. R-10-66