Site: Centurtered
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ecology and environment, inc.

SITE SAFETY PLAN

Version 988

A. GENERAL INFORMATION

Project Title: CertainTeed/Maline Creek
Project No.: ZT3071
TDD/Pan No.: T07/9412-016/EM00307SEA
Project Manager: David Kinroth
Project Dir.: Joseph Chandler, TATL
Location(s): 600 St. Cyr Road & Surrounding Subdivision to Southeast
Prepared by: David Kinroth
Date Prepared: 1-4-95
Approval by:
Date Approved:
Site Safety Officer Review: David Kinroth
Date Reviewed: 1-4-95
Scope/Objective of Work: Conduct Ambient Air Monitoring & Soil Sampling for Asbestos per work plan (QASP)
Proposed Date of Field Activities: 1-5-95

Background Info: Complete: [✓] Preliminary (No analytical data available) [ ]

Documentation/Summary:

Overall Chemical Hazard:	Serious [ ] Low [X]	Moderate [ ] Unknown [ ]
Overall Physical Hazard	Serious [ ] Low [X]	Moderate [ ] Unknown [ ]

B. SITE/WASTE CHARACTERISTICS

Waste Type(s):

Liquid [ ] Solid [X] Sludge [ ] Gas/Vapor [ ]

Characteristic(s):

Flammable/Ignitable [ ] Volatile [ ] Corrosive [ ] Acutely Toxic [ ]

Explosive [ ] Reactive [ ] Carcinogen [X] Radioactive* [ ]

Other: Lung Disease Hazard

Physical Hazards:

Overhead [ ] Confined* Space [ ] Below Grade [ ] Trip/Fall [X]

Puncture [ ] Burn [ ] Cut [ ] Splash [ ]

Noise [ ] Other:

*Requires completion of additional form and special approval from the Corporate Health/Safety group. Contact RSC or HQ.

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Superfund
0400

Site History/Description and Unusual Features (see Sampling Plan for detailed description): Asbestos containing transite pipe & sheeting was landfilled on site from mid 1920's until sometime in 1970's -

Locations of Chemicals/Wastes: Exposed along Maline Creek Bank due to erosional processess - may have spread by entrainment or flooding

Estimated Volume of Chemicals/Wastes: Undetermined

Site Currently in Operation Yes: [X] No: [ ]

Not Active in Asbestos Transite production - other businesses

C. HAZARD EVALUATION

List Hazards by Task (i.e., drum sampling, drilling, etc.) and number them. (Task numbers are cross-referenced in Section D)

Physical Hazard Evaluation: ① Air Sampling with personal pumps - area samples - little hazard ② Soil Sampling - low hazard - possible respiratory - level C recomended if soil is not damp or saturated ③ Site Documentation - Trip/Fall Due to snow and ice patches on the ground

Chemical Hazard Evaluation:

Compound	PEL/TWA	Route of Exposure	Acute Symptoms	Odor Threshold	Odor Description
Asbestos (All Forms)	0.2F/cc TWA 1.0F/cc STEL	Inhalation	Dyspnea; Fibrosis	NA	NA

Note: Complete and attach a Hazard Evaluation Sheet for major known contaminant.

D. SITE SAFETY WORK PLAN

Site Control: Attach map, use back of this page, or sketch of site showing hot zone, contamination reduction, zone, etc.

Perimeter identified? [X] Site secured? [X]

Work Areas Designated? [X] Zone(s) of Contamination Identified? [ ] No

Personnel Protection (TLD badges required for all field personnel):

Anticipated Level of Protection (Cross-reference task numbers to Section C):

	A	B	C	D
Task 1				X
Task 2			X	X
Task 3				X
Task 4				

(Expand if necessary)

Modifications: Level D for soil sampling if surface is saturated

Action Levels for Evacuation of Work Zone Pending Reassessment of Conditions:

- Level D: O_2 <19.5% or >25%, explosive atmosphere >10% LEL, organic vapors above background levels, particulates >_____ mg/m^3, other _____.
- Level C: O_2 <19.5% or >25%, explosive atmosphere >25% LEL (California-20%), unknown organic vapor (in breathing zone) >5 ppm, particulates >_____ mg/m^3, other _____.
- Level B: O_2 <19.5% or >25%, explosive atmosphere >25% LEL (California-20%), unknown organic vapors (in breathing zone) >500 ppm, particulates >_____ mg/m^3, other _____.
- Level A: O_2 <19.5% or >25%, explosive atmosphere >25% LEL (California-20%), unknown organic vapors >500 ppm, particulates >_____ mg/m^3, other _____.

Air Monitoring (daily calibration unless otherwise noted):

Contaminant of Interest	Type of Sample (area, personal)	Monitoring Equipment	Frequency of Sampling
Asbestos (All Forms)	Area	Personal Pump w/ Cassette	8hr Interval

(Expand if necessary)

Decontamination Solutions and Procedures for Equipment, Sampling Gear, etc.:

- Dry Decontamination & Disposal of all Expendables/PPE
- Wipe Down Instruments with moist paper towels & dispose

Personnel Decon Protocol: Dry Decon / Disposal of all PPE

Decon Solution Monitoring Procedures, if Applicable: N/A

Special Site Equipment, Facilities, or Procedures (Sanitary Facilities and Lighting Must Meet 29 CFR 1910.120):

N/A

Site Entry Procedures and Special Considerations: N/A

Work Limitations (time of day, weather conditions, etc.) and Heat/Cold Stress Requirements:

Day Time - 8hr. period
Cold Stress possible - temperatures in single digits - Keep Warm Fluids available - frequent breaks

General Spill Control, if applicable: N/A

Investigation-Derived Material Disposal (i.e., expendables, decon waste, cuttings):

Dispose all material as ordinary trash - bag & dispose

Sample Handling Procedures Including Protective Wear:

New Surgical Gloves for collection of each sample.

Team Member*	Responsibility
Dave Kinroth	Team Leader
"	Site Safety Officer
Don Hamesa	EPA / OSC
Matt Burcham	Environmental Options / AHERA Technician
→ Possibly 1 more Assistant	→ Subcontractor

*All entries into exclusion zone require Buddy System use. All E & E field staff participate in medical monitoring program and have completed applicable training per 29 CFR 1910.120. Respiratory protection program meets requirements of 29 CFR 1910.134, and ANSI Z88.2 (1980).

E. EMERGENCY INFORMATION

(Use supplemental sheets, if necessary)

LOCAL RESOURCES

(Obtain a local telephone book from your hotel, if possible)

Ambulance 911

Hospital Emergency Room Christian NE Hospital 653-5722

Poison Control Center Cardinal Glennon 772-5200

Police (include local, county sheriff, state) 911

Fire Department 911

Airport N/A

Agency Contact (EPA, State, Local USCG, etc.) EPA 913-551-5000

Local Laboratory Industrial Testing Laboratories 771-7111 Bill Lowrey

UPS/Fed. Express N/A

Client/EPA Contact Don Hamera 913-551-5028

Site Contact

SITE RESOURCES

Site Emergency Evacuation Alarm Method 3 long blasts on vehicle horn

Water Supply Source Bring on Site - Carboys 5 gal.

Telephone Location, Number 314-795-3552

Cellular Phone, if available " " "

Radio

Other

EMERGENCY CONTACTS

1. Dr. Raymond Harbison (Univ. of Florida) ..... (501) 221-0465 or (904) 462-3277, 3281
   Alachua, Florida (501) 370-8263 (24 hours)

2. Ecology and Environment, Inc., Safety Director
   Paul Jonmaire ..... (716) 684-8060 (office)
   (716) 655-1260 (home)

3. Regional Office Safety Contact..... (913) 432-9961 (office)
   Dave Tyson..... (816) 252-7954 (home)

4. TATL, or Office Manager ..... (913) 432-9961 (office)
   Jim Jackson, Office Manager..... (913) 262-1135 (home)
   Joe Chandler, TATL..... (913) 829-1384 (home)
   Dave Kinroth, ATATL..... (314) 921-4319 (home)

MEDTOX HOTLINE

1. Twenty-four hour answering service: (501) 370-8263

   What to report:

   - State: "this is an emergency."
   - Your name, region, and site.
   - Telephone number to reach you.
   - Your location.
   - Name of person injured or exposed.
   - Nature of emergency.
   - Action taken.

2. A toxicologist, (Drs. Raymond Harbison or associate) will contact you. Repeat the information given to the answering service.

3. If a toxicologist does not return your call within 15 minutes, call the following persons in order until contact is made:

   a. **24 hour hotline - (716) 684-8940**
   b. Corporate Safety Director - Paul Jonmaire - home # (716) 655-1260
   c. Assistant Corp. Safety Officer - Steven Sherman - home # (716) 688-0084

EMERGENCY ROUTES

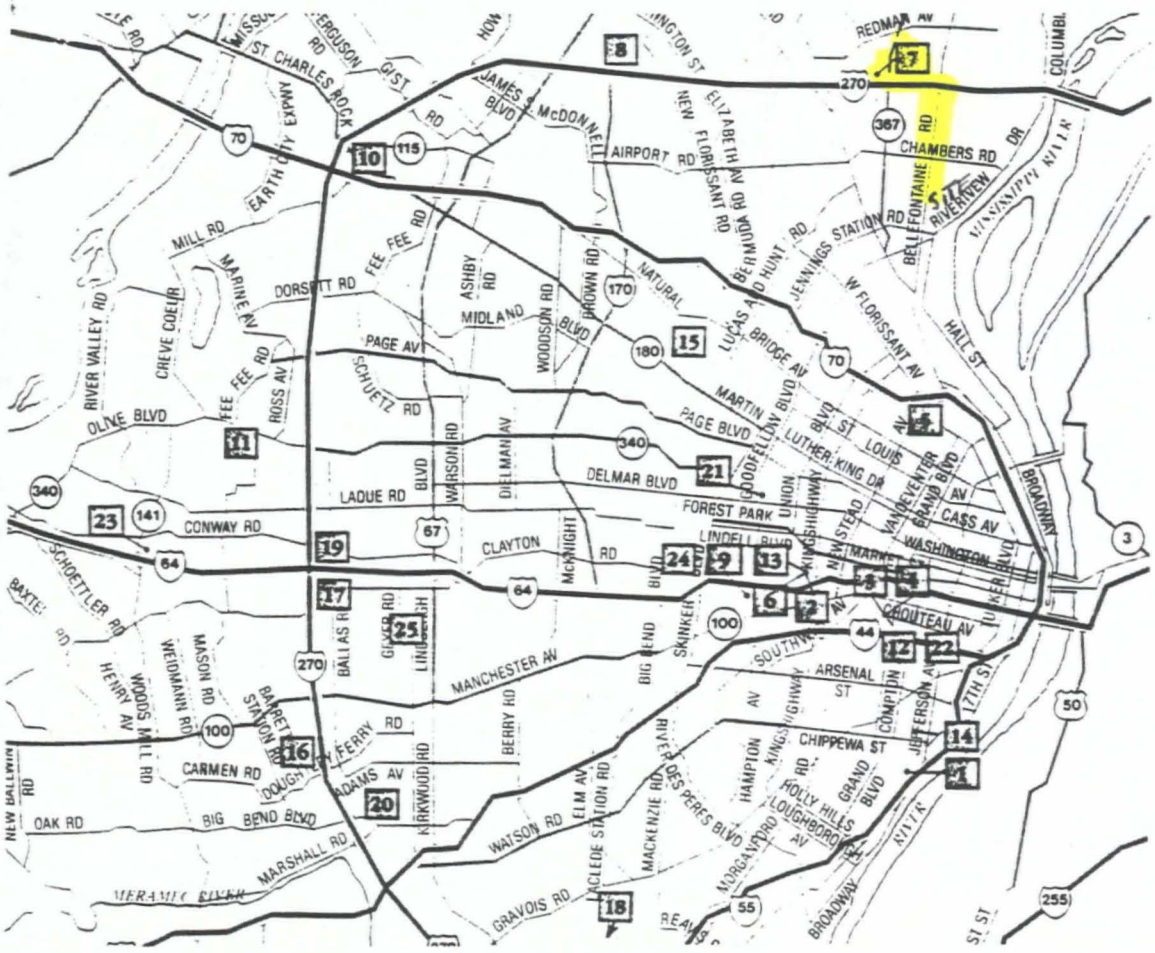
(NOTE: Field Team must Know Route(s) Prior to Start of Work)

Directions to hospital (include map) From Site West on St. Cyr to Bellefontaine Rd - North on Bellefontaine to I-270 - I-270 West to Hwy 367 North - HWY 367 North to 1st Stop light - turn left & follow signs to Emergency Entrance

Emergency Egress Routes to Get Off-Site West Down Driveway to St. Cyr Rd. - St. Cyr to Bellefontaine Rd.

St. Louis Hospitals

1. **Alexian Brothers Hospital**
   3933 S. Broadway
   St. Louis 63118
   865-3333
2. **Barnes Hospital**
   1 Barnes Hospital Plaza
   St. Louis 63110
   362-5000
3. **Bethesda General**
   3655 Vista Avenue
   St. Louis 63110
   772-9200
4. **Cardinal Glennon Memorial Hospital for Children**
   1465 S. Grand Boulevard
   St. Louis 63104
   577-5600
5. **Central Medical Center**
   4411 N. Newstead Avenue
   St. Louis 63115
   382-7979
6. **Children's Hospital**
   400 S. Kingshighway Boulevard
   St. Louis 63110
   454-6000
7. **Christian Hospital Northeast**
   11133 Dunn Road
   Spanish Lake 63136
   355-2300
8. **Christian Hospital Northwest**
   1225 Graham Road
   Florissant 63031
   839-3800
9. **Deaconess Hospital**
   6150 Oakland Avenue
   St. Louis 63139
   768-3000
10. **DePaul Health Center**
    12303 DePaul Drive
    Bridgeton 63044
    344-6000
11. **Faith Hospital**
    12634 Olive Boulevard
    St. Louis 63141
    434-0600
12. **Incarnate Word Hospital**
    3545 Lafayette Avenue
    St. Louis 63104
    664-6500
13. **Jewish Hospital at St. Louis**
    216 S. Kingshighway Boulevard
    St. Louis 63110
    454-7000
14. **Lutheran Medical Center**
    2639 Miami Street
    St. Louis 63118
    772-1456
15. **Metropolitan Medical Center/North**
    7840 Natural Bridge Road
    St. Louis 63121
    389-0015
16. **Metropolitan Medical Center/West**
    530 Des Peres Road
    St. Louis 63131
    821-5850
17. **Missouri Baptist Hospital**
    3015 N. Ballas Road
    St. Louis 63131
    432-1212
18. **St. Anthony's Medical Center**
    10010 Kennerly Road
    St. Louis 63128
    525-1000
19. **St. John's Mercy Medical Center**
    615 S. New Ballas Road
    St. Louis 63141
    569-6000
20. **St. Joseph's Hospital (Kirkwood)**
    525 Couch Avenue
    St. Louis 63122
    966-1500
21. **St. Louis Regional Medical Center**
    5535 Delmar Boulevard
    St. Louis 63112
    361-1212
22. **St. Louis University Hospital**
    3635 Vista Avenue at Grand Boulevard
    St. Louis 63110
    577-8000
23. **St. Luke's Hospital**
    232 S. Woods Mill Road
    Chesterfield 63017
    434-1500
24. **St. Mary's Health Center**
    6420 Clayton Road
    St. Louis 63117
    768-8000
25. **Shriners Hospital for Crippled Children**
    2001 S. Lindbergh Boulevard
    St. Louis 63131
    432-3600



F. EQUIPMENT CHECKLIST

PROTECTIVE GEAR

Level A	No.	Level B	No.
SCBA		SCBA	
SPARE AIR TANKS		SPARE AIR TANKS	
ENCAPSULATING SUIT (Type)		PROTECTIVE COVERALL (Type)	
SURGICAL GLOVES		RAIN SUIT	
NEOPRENE SAFETY BOOTS		BUTYL APRON	
BOOTIES		SURGICAL GLOVES	
GLOVES (Type)		GLOVES (Type)	
OUTER WORK GLOVES		OUTER WORK GLOVES	
HARD HAT		NEOPRENE SAFETY BOOTS	
CASCADE SYSTEM		BOOTIES	
5-MINUTE ESCAPE COOLING VEST		HARD HAT WITH FACE SHIELD	
		CASCADE SYSTEM	
		MANIFOLD SYSTEM	
Level C		**Level D**	
ULTRA-TWIN RESPIRATOR	X	ULTRA-TWIN RESPIRATOR (Available)	X
POWER AIR PURIFYING RESPIRATOR		CARTRIDGES (Type GMC-H)	X
CARTRIDGES (Type GMC-H)	X	5-MINUTE ESCAPE MASK (Available)	
5-MINUTE ESCAPE MASK		PROTECTIVE COVERALL (Type Tyvek)	X
PROTECTIVE COVERALL (Type Tyvek)	X	RAIN SUIT	
RAIN SUIT	X	NEOPRENE SAFETY BONDS	
BUTYL APRON		BOOTIES	X
SURGICAL GLOVES Vinyl - Powder Free	X	WORK GLOVES Jersey	X
GLOVES (Type)	X	HARD HAT WITH FACE SHIELD	
OUTER WORK GLOVES		SAFETY GLASSES	
NEOPRENE SAFETY BOOTS			
HARD HAT WITH FACE SHIELD			
BOOTIES	X		
HARDHAT			

INSTRUMENTATION	No.	DECON EQUIPMENT	No.
OVA		WASH TUBS	
THERMAL DESORBER		BUCKETS	
O2/EXPLOSIMETER W/CAL. KIT		SCRUB BRUSHES	
PHOTOVAC TIP		PRESSURIZED SPRAYER	
HNu (Probe)		DETERGENT (Type)	
MAGNETOMETER		SOLVENT (Type)	
PIPE LOCATOR		PLASTIC SHEETING	
WEATHER STATION		TARPS AND POLES	
DRAEGER PUMP, TUBES		TRASH BAGS	X
BRUNTON COMPASS		TRASH CANS	
MONITOX CYANIDE		MASKING TAPE	X
HEAT STRESS MONITOR		DUCT TAPE	X
NOISE EQUIPMENT		PAPER TOWELS	X
PERSONAL SAMPLING PUMPS 10+	X	FACE MASK	
		FACE MASK SANITIZER	
		FOLDING CHAIRS	
		STEP LADDERS	
RADIATION EQUIPMENT		DISTILLED WATER	X
DOCUMENTATION FORMS			
PORTABLE RATEMETER			
SCALER/RATEMETER		**SAMPLING EQUIPMENT**	
NaI Probe		8 OZ. BOTTLES	
ZnS Probe		HALF-GALLON BOTTLES	
GM Pancake Probe		VOA BOTTLES	
GM Side Window Probe		STRING	
MICRO R METER		HAND BAILERS	
ION CHAMBER		THIEVING RODS WITH BULBS	
ALERT DOSIMETER		SPOONS	X
POCKET DOSIMETER		KNIVES	X
		FILTER PAPER	
FIRST AID EQUIPMENT		PERSONAL SAMPLING PUMP SUPPLIES + cartridges	X
FIRST AID KIT	X	4oz Bottles	X
OXYGEN ADMINISTRATOR			
STRETCHER			
PORTABLE EYE WASH			
BLOOD PRESSURE MONITOR			
FIRE EXTINGUISHER	X		

VAN EQUIPMENT	No.
TOOL KIT	X
HYDRAULIC JACK	
LUG WRENCH	
TOW CHAIN	
VAN CHECK OUT	X
Gas	X
Oil	X
Antifreeze	X
Battery	X
Windshield Wash	X
Tire Pressure	X
MISCELLANEOUS	
PITCHER PUMP	
SURVEYOR'S TAPE	
100 FIBERGLASS TAPE	X
300 NYLON ROPE	
NYLON STRING	
SURVEYING FLAGS	X
FILM + CAMERA	X
WHEEL BARROW	
BUNG WRENCH	
SOIL AUGER	
PICK	X
SHOVEL	X
CATALYTIC HEATER	
PROPANE GAS	
BANNER TAPE	
SURVEYING METER STICK	
CHAINING PINS & RING	
TABLES	
WEATHER RADIO	
BINOCULARS	
MAGAPHONE	

MISCELLANEOUS (Cont.)	No.
SHIPPING EQUIPMENT	
COOLERS	X
PAINT CANS WITH LIDS, 7 CLIPS EACH	
VERMICULITE	
SHIPPING LABELS	X
DOT LABELS: "DANGER"	
"UP"	
"INSIDE CONTAINER COMPLIES ..."	
"HAZARD GROUP"	
STRAPPING TAPE	X
BOTTLE LABELS	X
BAGGIES	X
CUSTODY SEALS	X
CHAIN-OF-CUSTODY FORMS	X
FEDERAL EXPRESS FORMS	
CLEAR PACKING TAPE	X

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ON-SITE SAFETY MEETING

Project _____ TDD/Pan _____

Date _____ Time _____ Job No. _____

Address _____

Specific Location _____

Type of Work _____

_____

SAFETY TOPICS PRESENTED

Protective Clothing/Equipment _____

_____

Chemical Hazards _____

_____

Radiation Hazards _____

_____

Physical Hazards _____

_____

Emergency Procedures _____

_____

Hospital/Clinic _____ Telephone _____

Hospital Address _____

Special Equipment _____

Other _____

Checklist

1. Emergency information reviewed? _____ and made familiar to all team members? _____
2. Route to nearest hospital driven? _____ and its location known to all team members? _____
3. Site safety plan readily available and its location known to all team members? _____

Meeting shall be attended by all personnel who will be working within the exclusion area. Daily informal update meetings will be held when site tasks and/or conditions change.

ATTENDEES
(Expand on back of sheet if necessary)

Name Printed	Signature

Meeting Conducted by: _____ _____
(Print) (Signature)

_____ _____
(Site Safety Coordinator) (Team Leader)