

REGION 3 PROCEDURE
FOR HAZARDOUS SUBSTANCE INCIDENTS
WITHIN CDOT RIGHT OF WAY
2011

MIKE VERKETIS & EMMALEE BLENDER



US-6 Loveland Pass, tank roll over



Photos by Jim Pitkin 2009

TABLE OF CONTENTS

1.0 MISSION STATEMENT.....	1
2.0 INCIDENT PHASES.....	2
3.0 PHASE II INITIAL RESPONSE.....	3
4.0 SPILL TYPES.....	4
5.0 PHASE III REMEDIATION AND RESTORATION.....	5
APPENDIX A Glossary.....	A-1
APPENDIX B Types of Spills.....	B-1
APPENDIX C Remediation Issues.....	C-1
APPENDIX D Case Studies.....	D-1
APPENDIX E CDPHE Environment release and Incident System Report.....	E-1
APPENDIX F CDOT Procedure for Spills.....	F-1



Fatal Dump Truck & Trailer With Acid Totes Accident. SH 139 2009.

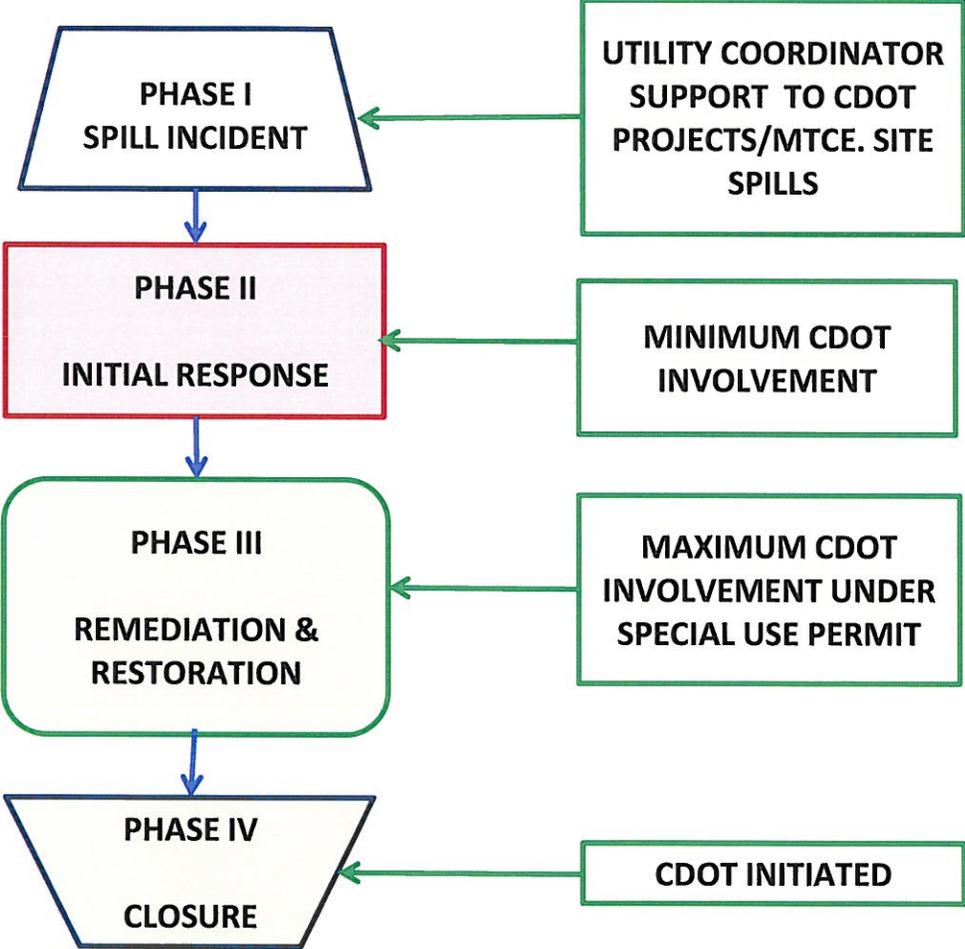
By Mike Verketis

Mission Statement

The CDOT Spill Coordinator is tasked to provide good stewardship of the environment and protect the assets of the citizens of the state. This is accomplished by timely remediation and restoration of the area impacted by spills while protecting the safety of the citizens. The Spill Coordinator is on call 24/7/365.

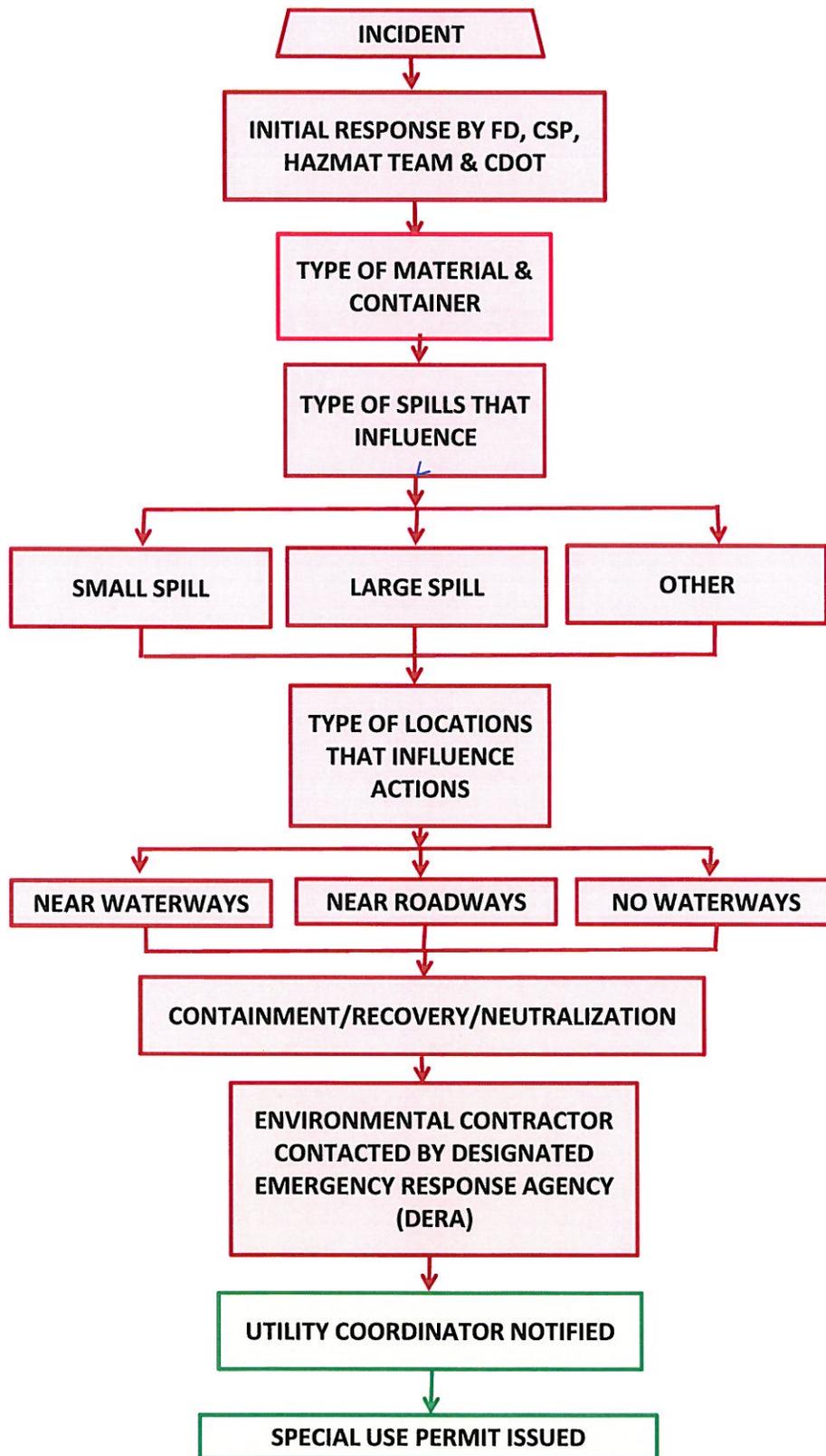
2.0 INCIDENT PHASES

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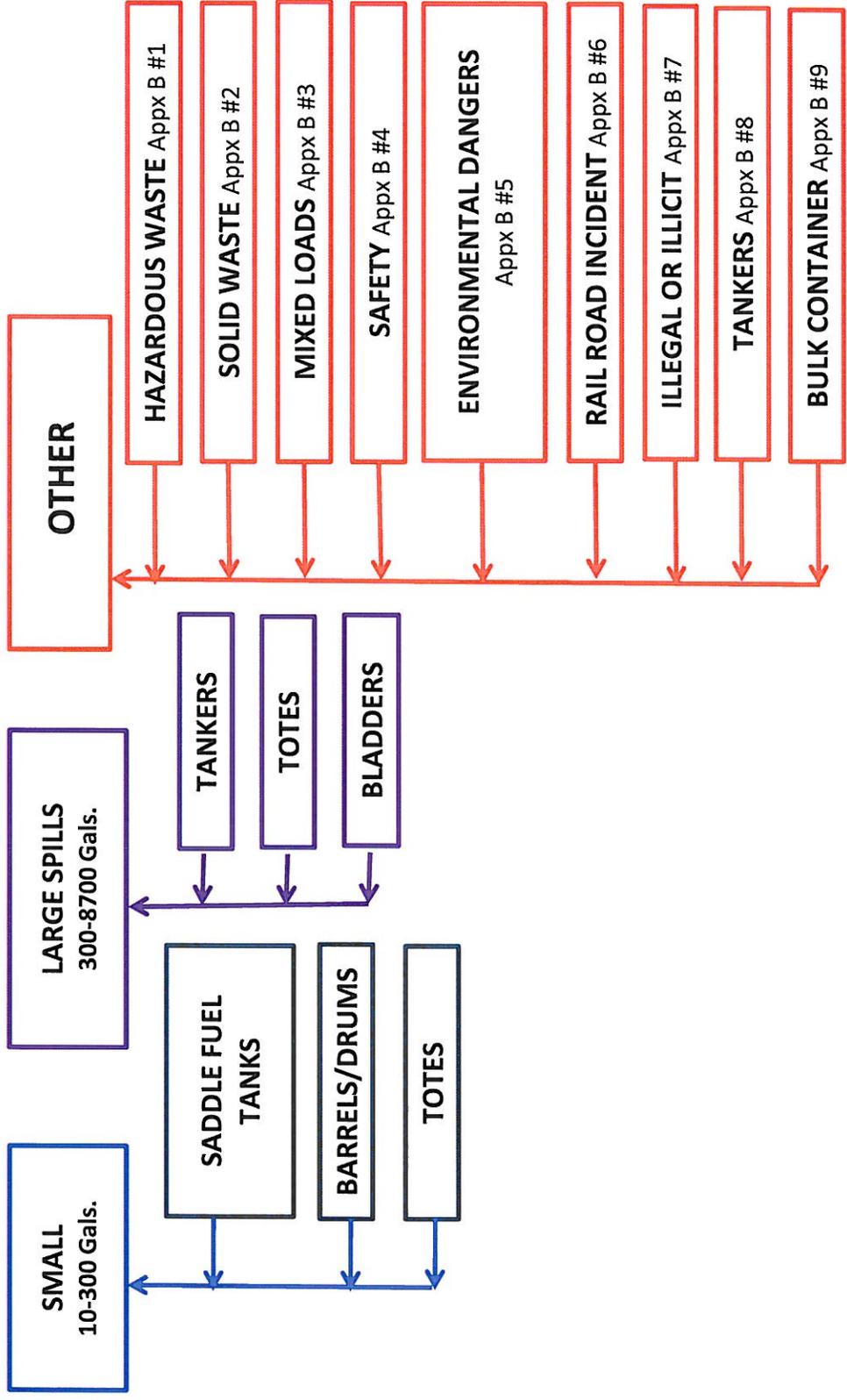
3.0 PHASE II INITIAL RESPONSE

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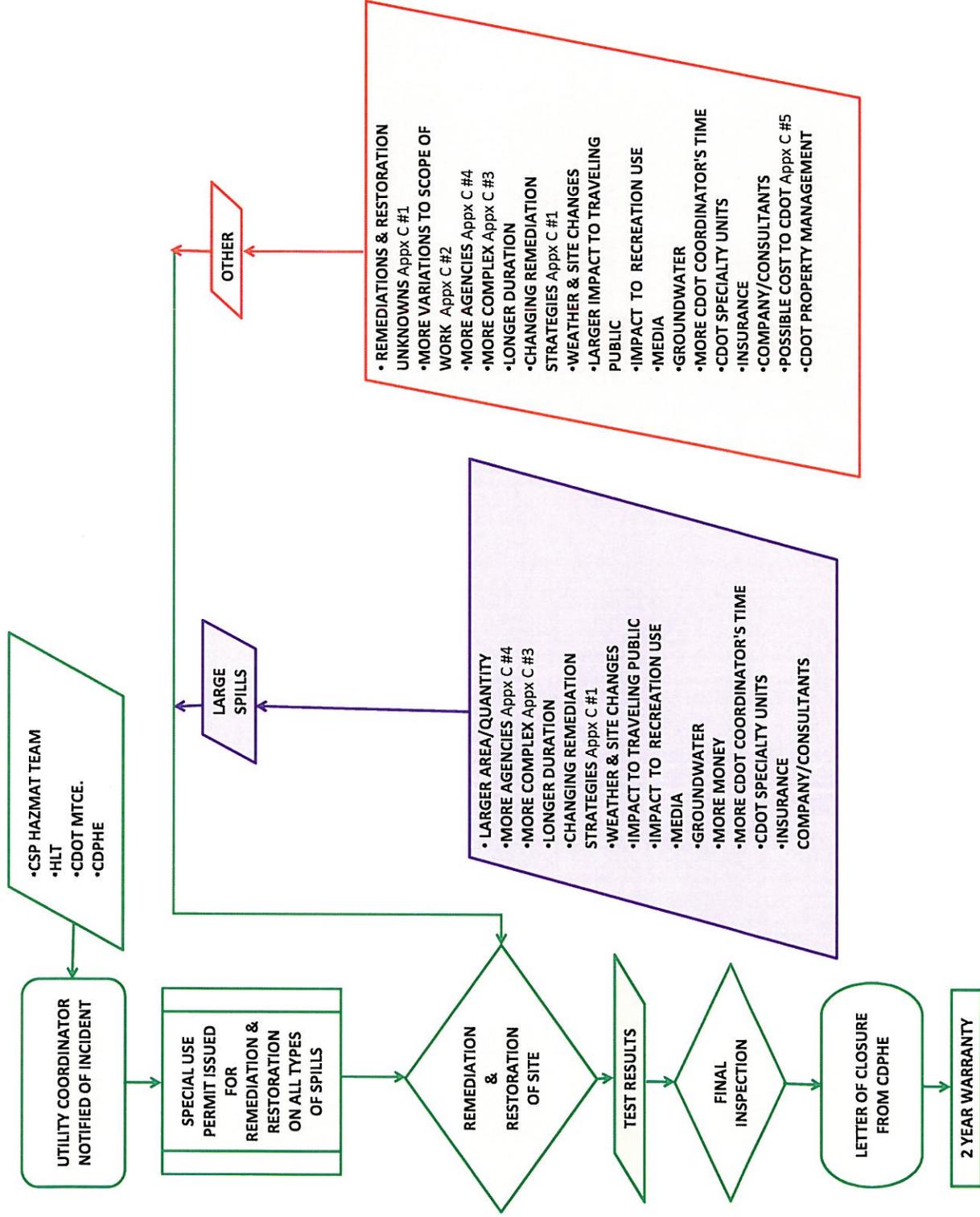
4.0 SPILL TYPES

4.0 SPILL TYPES



5.0 PHASE III REMEDIATION AND RESTORATION

5.0 PHASE III REMEDIATION & RESTORATION



APPENDIX

APPENDIX A

GLOSSARY

<u>CDPHE</u>	COLORADO DEPARTMENT OF PUBLIC HEALTH & ENVIRONMENT. Protects & preserve the health and environment of the State of Colorado. Defines & regulates Hazardous Waste & Solid Waste within the state of Colorado and the locations that can accept these materials. All incidents involving a reported quantity of hazardous materials must be reported to the CDPHE Hot Line and are tracked until a Letter of Closure is issued by the CDPHE. CDPHE Hot Line operates 24 hour a day, 7 day a week, 365 days a year.
<u>CSP</u>	COLORADO STATE PATROL. Respond to accidents.
<u>DERA</u>	DESIGNATED EMERGENCY RESPONSE AUTHORITY. The DERA provides emergency response to a incident in its jurisdiction. The DERA may function as or designate the Incident Commander on scene. One of the duties of the DERA is to contact a cleanup contractor and have them respond. Within Region 3 the CSP Haz Mat Teams are the DERA, with the exception of Mesa County and BLM lands. Grand Junction Fire Department Haz Mat team is the DERA for these areas.
<u>EPA</u>	U.S. ENVIRONMENTAL PROTECTION AGENCY. Becomes involved when waterways are involved with a Haz Mat incident.
<u>HAZ MAT</u>	HAZARDOUS MATERIAL. Is any item or agent (biological, chemical or physical) which has the potential to cause harm to life, property or the environment, either by itself or through interaction with other factors. Hazardous Materials are defined and regulated in the US primarily by laws and regulations administered by EPA, OSHA, USDOT and NRC. Each has its own definition of a “hazardous material.”
<u>NRC</u>	U.S NUCLEAR REGULATORY COMMISSION.
<u>NRC</u>	NATIONAL RESPONSE CENTER. NRC is the sole federal point of contact for reporting oil or chemical spills. NRC operates a 24 hour a day, 7 day a week, 365 days a year.

<u>OSHA</u>	U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
<u>USDOT</u>	UNITED STATES DEPARTMENT OF TRANSPORTATION. Identifies, classifies & regulates Hazardous Material that is transported or moved within the US.
<u>CLEAN UP CONTRACTORS</u>	Specially trained contractors, who specialized in Haz Mat cleanups.
<u>INCIDENT</u>	An event or occurrence where a material is release from its container, that could lead to serious consequences, usually the results of vehicle accident.
<u>LETTER OF CLOSURE</u>	A document from the CDPHE, that declares that the site has been cleaned up and soil test results are within CDPHEs standards. The CDOT Final Inspection form starts the Letter of Closure. Upon receipt of the Letter of Closure, the Responsible Party (RP) is no longer liable for the spill. However, RP is liable for two years under the terms & conditions of the Special Use Permit.
<u>RESPONSIBLE PARTY</u>	Owner of the vehicle involved in the incident or owner of the material or product. If a RP can not be found or identified, then the property owner becomes the RP (CDOT).

APPENDIX B

TYPES OF SPILLS

1. **HAZARDOUS WASTE-** Is classified by the CDPHE as material that poses substantial or potential threats to public health or the environment and generally exhibits one or more of these following characteristics. The soil becomes saturated by this waste.
 - Ignitable
 - Reactive
 - Corrosive
 - Toxic
2. **SOLID WASTE-**An garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or other discarded material, drilling fluids, produced water or other wastes associated with exploration, development or production of crude oil, natural gas or geothermal energy not declared a hazard. Example- Truckload of Bentonite at 58mm SH65 2009
3. **MIXED LOADS-** Combinations of hazardous or consumer packaged loads that become mixed, i.e.; different totes the become mixed during an accident, becoming a new hazard, WalMart, Target and City Market trucks. Example- Halliburton incident involving two separate totes of different chemical solutions, which combined to form Chloroform at 22mm SH 64, 2008.
4. **SAFETY-** Load that present a safety hazard to the traveling public. Example-150 gallons, in pails, of Roof Coating material at 44mm I-70, 2009.
5. **ENVIRONMENTAL DANGERS-** Not declared a Hazardous Material by USDOT, but present danger to the environment. Example-Tanker overturn incident involving 3000 gallons of citric acid at 14mm SH114 2009.
6. **RAILROAD INCIDENT-** Train derailment, where loads from damaged cars impact CDOT ROW. Example-Derailment involving Anhydrous Ammonia tank cars, 1995? Glenwood Canyon.
7. **ILLEGAL OR ILLICIT-** Any material or container that is found in our ROW where an owner can not found. The owner is responsible for the cleanup and/or the removal material. This is the only incident that costs CDOT money, which is handled by CDOT Property Management, who has a cleanup slush fund and contracts a Hazmat Cleanup Company. Example-A flammable gas container found at 12mm SH13 2010. Cleanup company removed and disposed of it.
8. **TANKERS-** Vehicle & container that carry a wide variety of materials and each has to be dealt with differently. Example-A propane tanker wreck that was leaking propane 22mm SH64 2008. Too dangerous to off-load or remove until empty. Allowed to empty by venting to atmosphere.

APPENDIX C

REMEDIATION ISSUES

1. INFORMATION OF THE MATERIAL(s) IS ONLY LIMITED AT THE TIME INITIAL RESPONSE. AS MORE INFORMATION OF THE MATERIAL INVOLVED IN THE INCIDENT IS GATHERED FROM MATERIAL SAFETY DATA SHEETS (MSDS) AND FROM THE MANUFACTURER, PLANS OF REMEDIATION & RESTORATION CAN BE FORMULATED. EXAMPLE- TRUCK FIRE ON I-70 AT 20mm INVOLVING BULK PACKAGED IRON OXIDE 2008. IRON OXIDE IS A DYE AND DIME SIZED DROP CAN TURN 500 GALLONS OF WATER RED. INCIDENT INVOLVED 4 OPENED PALLETS AND THEIR CONTENTS.
2. NORMAL REMEDIATION IS EXCAVATE, REMOVE AND BACKFILL. MATERIAL MAY REQUIRE NEUTRALIZATION OR STABILIZATION BEFORE REMOVAL. EXAMPLE- ACCIDENT ON SH139 AT 21mm, INVOLVING ACID TOTES AND COAL TRUCK 2009.
3. EXCAVATION AND REMOVAL OF MATERIAL MAY BE RESTRICTED BY LOCATION, NEAR BY WATER, ROAD OR STRUCTURES. MORE OVERSIGHT IS NECESSARY TO LIMIT DEPTH AND EXTENT OF EXCAVATION, GROUNDWATER CONCERNS AND/OR OTHER METHODS OF REMOVAL, MONITORING WELLS OR POSSIBLE INJECTION OF CHEMICALS TO CHEMICALLY SPEED UP THE BREAKUP OF THE HYDROCARBON MOLECULES. EXAMPLE- DIESEL SPILL ON I-70 AT 108mm. OLD SNOWMASS GAS STATION SPILL 2009.
4. CERTAIN MATERIAL OR THE SIZE OF THE MAY INVOLVE MORE FEDERAL, STATE AND LOCAL AGENCIES IF WATERWAYS ARE INVOLVED. EXAMPLE- 6100 GALLON SPILL OF GASOLINE ON I-70 AT 181.5mm, EAST OF THE TOWN OF VAIL 2007, STILL ON GOING. AGENCIES INVOLVE INCLUDE EPA, USFS, CDPHE, TOWN OF VAIL, CSP HAZ MAT AND CDOT.
5. SPILLS, ILEGAL OR ILLICIT DUMPS WHERE THERE IS NOT A RESPONSIBLE PARTY TO PAY FOR THE CLEANUP, CDOT AS THE PROPERTY OWNER IS RESPONSIBLE FOR THE CLEANUP. HQ PROPERTY MANAGEMENT HAS A SPECIAL FUND FOR THESE OCCASIONS. THIS FUND IS LIMITED. EXAMPLE- FLAMMABLE GAS CONTAINER SH13 AT 13mm, 2010.

**APPENDIX D
CASE STUDIES**



Illicit Spill I-70 2009

By Mike Verketis



Remediation of Gasoline Spill. Vail Pass I-70

By Mike Verketis

APPENDIX E

CDPHE Environmental Release and Incident System Report

Print date 9/20/2007

CASE NUMBER: 2007-0780 DATE ENTERED: 9/17/2007 TIME ENTERED: 14:07
WHO TOOK REPORT: GREG STASINOS DATE REPORTED: 9/17/2007 TIME REPORTED: 1:55:00 PM
NRC NUMBER: 849009

CALLER: ROBERT AKIN CONFIDENTIAL: N PHONE: 801-363-2711
ORGANIZATION: SINCALIR TRUCKING
STREET: 1200 N. BECK ST.
CITY: SALT LAKE CITY COUNTY:
STATE: UT ZIP CODE: 84116-

POTENTIALLY RESPONSIBLE PARTY: SINCALIR TRUCKING
PRP CONTACT: ROBERT AKIN PRP PHONE: 801-363-2711
ADDRESS: 1200 N. BECK ST. FAX:
CITY: SALT LAKE CITY COUNTY:
STATE: UT ZIP CODE: 84116-

EVENT DATE: 7/18/2007 EVENT TIME: 10:42:00 AM
LOCATION: I-70 WB MILE MARKER: 181
CITY: VAIL COUNTY: EAGLE Latitude: 0
STATE: CO ZIP CODE: Longitude: 0

TYPE OF MATERIAL: OIL
MATERIAL1: DIESEL QUANTITY1: 5100 UNIT1: GALLONS QTY TO WATER1: 0 UNIT1:
MATERIAL2: QUANTITY2: UNIT2: QTY TO WATER2: UNIT2:
MATERIAL3: QUANTITY3: UNIT3: QTY TO WATER3: UNIT3:

SOURCE: H
SOURCE TYPE: MOTOR VEHICLE
CAUSE: TRANSPORTATION AC
CAUSE INFORMATION: TRUCK ROLLED OVER ON HIGHWAY DUE TO UNKNOWN CAUSE. TANKER LOST APPROXIMATELY 5100 GALLONS OF AN 8000 GALLON LOAD.

MEDIUM IMPACTED: LAND
Fixed Facility Land Air Groundwater
Surface Water Waterway Impacted:

NUMBER OF DEATHS: NUMBER OF INJURIES: EVACUATION: NUMBER EVACUATED:

CDPHE Environmental Release and Incident System Report

Print date 9/20/2007

ACTION TAKEN: CLEANUP CONTRACTOR WILL CONTACTED TO CLEANUP ALL IMPACTED AREAS.

CDPHE NOTIFIED: HMWMD-CHARLES JOHNSON, ROGER DOAK

COMMENTS: CDOT-ANDY FLURKEY

RESPONDERS: CSP HAZMAT

RESPONDER COMMENTS: NO WATERWAYS WERE IMPACTED. DRIVER OF TRUCK WAS INJURED. INJURIES SUFFERED WERE FROM ACCIDENT AND NOT RELEASED MATERIAL.

ADDITIONAL COMMENTS:

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

4201 East Arkansas Avenue EP #B400
Denver, Colorado 80222
(303) 757-9259
(303) 757-9445 FAX



APPENDIX F

PROCEDURES FOR HAZARDOUS MATERIAL SPILLS THAT OCCUR ON STATE AND FEDERAL HIGHWAYS WITHIN COLORADO AS A RESULT OF A HIGHWAY TRANSPORTATION INCIDENT

PURPOSE AND SCOPE

This document is written to help explain to motor carriers and others, their responsibilities regarding spills of petroleum fuel and other hazardous materials due to transportation incidents or crashes on state or federal highways within Colorado. This document is a compilation of state rules, statutes, procedures, state and local contacts, and other information. This compilation is intended to help explain the requirements on reporting, permitting, remediating, and receiving “No Further Action” determinations on incidents involving spills in Colorado within a highway right-of-way.

Most spills on highways within Colorado involve vehicle fuel, such as diesel or gasoline. For this reason, additional information is given for these products where appropriate. This document is intended to be as complete as possible for most spills; however, it is not necessarily a comprehensive set of requirements.

APPLICABLE RULES AND REGULATIONS

Notification

- National Response Center (40 C.F.R., Part 302.6, 40 C.F.R., Part 116);
- Colorado State Patrol (8 C.C.R. 1507-25, HMT 3);
- Colorado Department of Public Health and Environment (CDPHE), Environmental Emergency Spill Reporting Line (6 C.C.R. 1007-2, Section 263.30; §25-8-601, C.R.S.; 40 C.F.R., Part 116); and,
- U.S. Department of Transportation (49 C.F.R., Parts 171.15 and 171.16).

Remediation

SOIL: Solid waste: 6 C.C.R. 1007-2; §30-20-100.5, C.R.S., et seq., and §30-20-110(j), C.R.S.; Hazardous waste: 6 C.C.R. 1007-3, and §25-15-101, C.R.S., et seq.; Article 80 of the Uniform Fire Code; 29 C.F.R. 1910.120; and others.

WATER: Colorado Water Quality Control Act, §25-8-101, C.R.S., et seq.; Colorado Basic Standards for Ground Water, 5 C.C.R. 1002-8; Clean Water Act; Oil Pollution Act; Illegal Take of Wildlife §33-6-109, C.R.S., Article 80 of the Uniform Fire Code; 29 C.F.R. 1910.120; and others.

Transportation

49 C.F.R., Parts 100 – 185; 4 C.C.R. 723-6

NOTIFICATION

Spill Reporting

Where a transportation accident/incident results in product/fuel spill, reporting and clean-up by the responsible party is necessary:

- If the amount of petroleum fuel spilled exceeds **25 gallons**, or other reportable quantity according to EPA SARA Title III, List of Lists; and/or,
- The spilled materials have impacted or threaten to impact waters of the state; and/or,
- If the incident fits the conditions outlined in the information provided at the following Uniform Resource Locator (URL) link:

www.cdphe.state.co.us/emp/spillsandreleases.htm# Transportation Accidents

Notification should be provided immediately to:

- CDPHE 24-hour spill reporting number: **1 (877) 518-5608**
- National Response Center (NRC): **1 (800) 424-8802**
- Designated Emergency Response Authority¹ (DERA): **9-1-1**
- Colorado State Patrol (CSP) : **9-1-1** or **(303) 239-4501**
- CDOT Water Quality Hot Line: **(303) 512-4426**

Any accidental discharge to a sanitary sewer system must be reported **immediately** to the local sewer authority and the affected wastewater treatment facility.

If the spill has affected surface water, downstream water users should be notified **immediately**. This may be coordinated with the CDPHE through the 24-hour spill reporting line.

If the spill did or may affect waters of the State, in addition to calling the numbers listed above, two copies of a written notification report within five days must follow to:

¹ The Colorado State Patrol is the DERA for federal, state, and county roads, outside of a municipal city limits.

Greg Stasinos
Hazardous Materials and Waste Management Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80220
Email: gstasino@smtpgate.dphe.state.co.us
Phone: (303) 692-3023
Fax: (303) 759-5355

Written notification of any reportable transportation accident involving a release of hazardous materials also must be provided to the U.S. Department of Transportation within 30 days (49 CFR 171.16). Send written notification to:

Information Systems Manager, DHM-63
Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
Washington, D.C. 20590-0001
(202) 366-4000

Or, complete an electronic Hazardous Material Incident Report at the following URL link:

<https://hazmatonline.volpe.dot.gov/incident/>.

REMEDIATION PLANNING

Initial Incident Stabilization

All appropriate actions should be taken to protect the incident scene, e.g., prevent vehicle/pedestrian access and move to a location upwind to await first response agencies. Persons should not attempt to mitigate or remediate the spill unless they have:

- been properly trained and certified;
- the appropriate Personnel Protective Equipment (PPE) available to them;
- the required support personnel available to effect an entry; and,
- the response equipment necessary to stabilize the scene.

First response agencies should make a good faith effort to stabilize the scene to keep the spill from spreading and affecting additional soil and water resources and other environmental receptors. Suggested actions include but are not limited to: covering the spill area with plastic, placement of absorbent booms in affected water, placement of clean soil berms and/or absorbent booms downhill of the spill and/or between the spill area and nearest waterway, neutralization or chemical stabilization if appropriate, and surface and storm water diversion.

Permits and Certification

All areas affected by the spill need to be remediated and restored in accordance with all applicable permits and their requirements.

Utility Notification: Except in emergency situations, owners of underground utilities must be notified before any type of excavation begins. Call the Utility Notification Center of Colorado at 1 (800) 922-1987. More information is available at the following URL link:

<http://www.uncc2.org> .

CDOT Special Use Permit and Access Permit: After initial emergency response operations have been completed, any further work in the State Highway Right-of-Way must be authorized through a Special Use Permit. The Special Use Permit is also required in situations where a special temporary access route to the work site must be constructed, and/or cleanup equipment will be repeatedly exiting and entering the highway. For Special Use Permit and contact information, check the CDOT Website at the following URL link:

<http://www.dot.state.co.us/UtilityProgram/Contacts.cfm>.

Access permit information is available at the following URL link:

<http://www.dot.state.co.us/AccessPermits/>

If the spill has affected areas outside of the highway right-of-way, other entities may require notification and plan approval as well, including local, state, and federal agencies, and affected property owners.

Additional permits may be required if the spill remediation affects various resources such as: surface water discharge due to dewatering, disturbances over 1 acre, or contaminated water treatment; wetlands disturbance; impacts to threatened or endangered species or cultural resources, hazardous waste generation, and other concerns. Contact information and an overview of the most pertinent permits can be obtained from:

CDOT Environmental Clearances:

<http://www.dot.state.co.us/UtilityProgram/Forms.cfm> (Click on: *Environmental Clearances Information Summary for Entities External to CDOT*)

Water discharge permits:

<http://www.cdphe.state.co.us/wq/PermitsUnit/wqcdpmt.html>

Solid and Hazardous Waste, and Radioactive Materials:

<http://www.cdphe.state.co.us/hm/pnchom.asp>

Worker health, safety, and training requirements of the U.S. Occupational Safety and Health Administration (OSHA):

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765

REMEDIATION

Clean-up of spilled materials is required of any quantity of spilled fuel above the reportable quantity into soil or ground surface, and/or if the spill impacted soil, or has the potential to impact waters of the state. Waters of the state include: lakes, reservoirs, ponds, streams, rivers, ditches, storm drains, manholes, wetlands, storm water, and ground water.

Spills need to be remediated to CDPHE and Environmental Protection Agency (EPA) approved thresholds where applicable and to the strictest standards where different. Other cleanup thresholds may depend on the material spilled, the media affected (soil, groundwater, surface water) and the risk of leaving the material in place. Cleanup thresholds need approval by CDOT in order to issue a "No Further Action" determination to the responsible party.

Excavation and off-site disposal is the preferred and most common method of soil remediation at Colorado highway spill sites. If excavation is not feasible or allowed, clean-ups also may include a variety of technologies including but not limited to some combination of: excavation, air sparge, soil venting, bioremediation, steam cleaning, physical collection, and monitored natural attenuation.

Cleanup requirements may be flexible depending upon:

- Absence of water impacts;
- Public safety impacts if remediation could disrupt or weaken roadway;
- Needs and requirements of the landowner;
- Feasibility of technology options.

Petroleum Fuels: Gasoline and diesel fuel spills from transportation incidents in excess of 25 gallons that affect waters of the state need to be cleaned up to the following criteria:

- BTEX in residual soils: < 0.26 parts per million (ppm) benzene, 170 ppm toluene, 200 ppm ethylbenzene, 1900 ppm xylene; and,
- TPH, TEPH, or TVPH in soils: < 100 ppm; and,
- Benzene in water: < 5 micrograms per liter (ug/l); and,
- Xylenes in water: < 10,000 milligrams per liter (mg/l), and,
- MTBE in water: < 20 ug/l

Note: PID or OVM readings of volatile compounds at or above 10-20 ppm over background levels are a reasonable but not always reliable field screening tool, as long as the PID was properly calibrated that same day and the PID reading is done of headspace concentrations. This technique

involves placement of a soil sample in a sealed plastic bag, heating to ambient temperature (75 degrees Fahrenheit), then insertion of the PID probe into the bag headspace. After excavation and PID readings, samples still need to be collected of residual soils and affected water, and analyzed at an analytical laboratory, to confirm clean-up to required thresholds. These confirmation soil samples need to be taken as discrete samples and not composited from more than one location.

Soil:

If remediation will include soil disposal at a local licensed landfill, most landfills are permitted to accept petroleum-contaminated and non-hazardous highway spill media. For a list of permitted landfills, go to the following URL link:

<http://www.cdphe.state.co.us/hm/hmpubs.asp#swpolicy> (Scroll down to and click on: *Solid Waste Landfills List*)

Check with the landfill operator to see what soil sample analyses will be required for acceptance. Sampling may need to include:

- **Gasoline:** BTEX, TPH or TVPH, paint filter test, and ignitability. If free liquids are present, leachable **benzene** should be analyzed using the Toxicity Characteristic Leachate Procedure (TCLP). If the product was leaded gasoline, test for leachable **lead and cadmium** using the TCLP.
- **Diesel and similar fuels:** BTEX, TPH or TEPH, and paint filter test. Diesel contaminated soils, and most gasoline-contaminated soils, can be disposed in any approved solid waste facility which is licensed to accept these special wastes. Approval from the landfill must be obtained prior to shipment of soils. If gasoline contaminated soils fail the ignitability, leachable lead, and/or leachable benzene test, they require disposal as a hazardous waste.
- **Other spills:** Sampling of other spills will depend upon the nature of the product and disposal facility requirements. Possible sampling may include major or toxic compounds present in the product, as well as incidental characteristics. Some spills might be characterized by visual characteristics alone, such as asphalt and food product spills. For more information, check the various publications available at the following URL link:

<http://www.cdphe.state.co.us/hm/hmpubs.asp>

Water:

If ground water has been impacted and requires remediation, water can be treated on-site. Permits may require a Gasoline Cleanup permit or other discharge permit approved by the Water Quality Control Division and/or an Underground Injection Control notice by the U.S. EPA. Alternatively, the water can be collected and transported off-site to an approved water treatment facility.

Surface water remediation may or may not be feasible depending on site conditions. Every effort should be employed to provide spill containment and prevent its migration into water. Suggestions include but are not limited to: placement and as-needed replacement of absorbent booms downhill and/or downstream of the spill area; staged excavation to separate working area from surface water;

placement of barriers between working area and surface water; vacuuming up product and impacted water; upland water diversion; and prompt remediation completion.

Storm water needs to be protected before, during and after remediation including but not limited to placement of upland diversions, erosion control, and final site stabilization. A storm water permit may be required if the affected area exceeds 1 acre in size. For more information, see the CDOT pocketbook at:

<http://www.dot.state.co.us/environmental/envWaterQual/wqms4.asp>

Spills which impact surface water may be subject to U.S. Environmental Protection Agency sanctions including fines. Spills which result in fish kills may be subject to Colorado Division of Wildlife sanctions including fines.

Transportation of Contaminated Materials:

Transportation of contaminated materials needs to be done in accordance with rules adopted by the U.S. Department of Transportation, Federal Motor Safety Carrier Administration, and the Colorado Department of Public Safety. For further information go to the following URL links:

<http://hazmat.dot.gov>

<http://www.fmcsa.dot.gov/rules-regulations/truck/hazmat/hazmat.htm>.

<http://csp.state.co.us/hazard.cfm>

To obtain a state Hazardous Materials or Nuclear Transportation Permit, contact the Colorado Public Utilities Commission at (303) 894-2868. Or, obtain an application on-line at the following URL link:

http://www.dora.state.co.us/puc/applications/trans_aps/transaps.htm.

Site Restoration:

Site restoration needs to be done to the satisfaction of the landowner(s). CDOT is the landowner if the spill was contained within the highway right-of-way. If the spill extends beyond CDOT's property boundary, the other affected property owners should also be involved in determining site restoration requirements. Such property owners might include the U.S. Forest Service, Bureau of Land Management, local residents, etc.

CDOT site restoration requirements will be both site-specific and in accordance with state-wide construction specifications. Most requirements will be spelled out in the CDOT Special Use Permit and, if required, the CDOT Access permit issued for the site.

Additional CDOT state-wide specifications can be found at the following URL link:

<http://www.dot.state.co.us/DesignSupport/Construction/2005SpecsBook/2005index.htm>.

(Sections of particular note will pertain to environmental, hazardous materials, erosion control, and facilities such as asphalt, guardrails, backfill type and compaction)

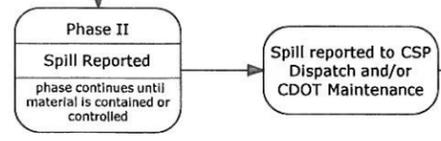
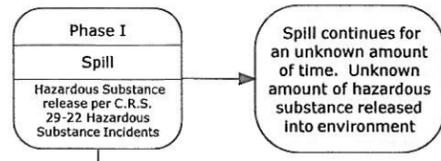
CLOSURE REPORT/NO FURTHER ACTION DETERMINATION

A closure report is required for all transportation incidents involving spills in excess of 100 gallons on property owned by the Colorado Department of Transportation (CDOT). This report should be compiled by the responsible party or their designee after clean-up is complete. The report at a minimum must include:

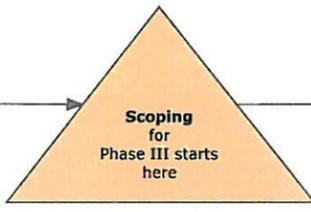
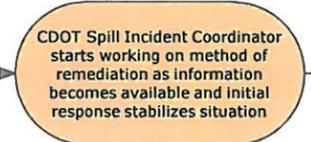
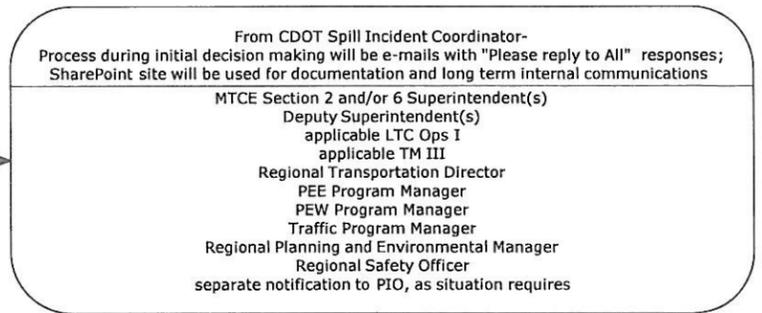
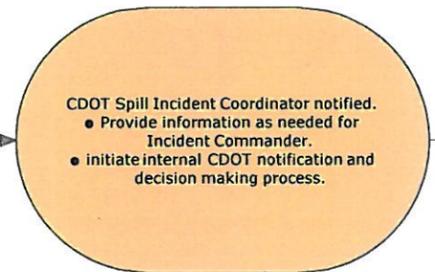
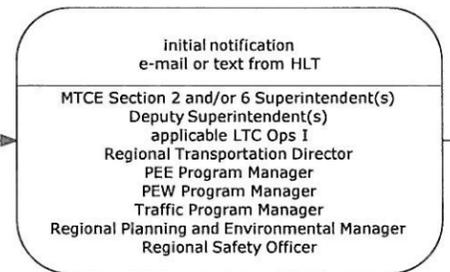
- Name, address, and telephone number of responsible party, and addresses of other parties to whom the closure letter should be sent;
- The CDPHE "Spill Reporting Line" Incident Report Case Number;
- The DERA's Incident Report Number;
- A description of the incident including when and where the accident occurred (highway number, milepost, county, nearest town or city, preferably the UTM coordinates in meters using the NAD83 Datum, what and how much was spilled, and what media the spill has or may have affected [soil, water, wetlands, etc.]);
- A map or sketch showing the spill area including features of interest such as: roadway surface, intersections if any, nearby surface water features such as ditches, wet or dry creek beds, rivers, ponds or lakes; adjacent wells; highway property boundary; spill area; excavation area; sample locations; topography; and anything else of note. The map or sketch should include a north arrow, scale, and explanation of features;
- A description of measures taken to remediate the spill and affected areas;
- Sufficient number of soil and water samples to represent residual conditions when remediation is complete, including discrete (not composite) soil samples collected from the base and sides of the excavated area, water samples at the conclusion of remediation if applicable, one-year's groundwater monitoring after remediation systems have been turned off or removed if applicable;
- Analytical results of residual soil and affected water demonstrating that clean-up was achieved to required thresholds, including copies of laboratory analyses and completed Chain-of-Custody paperwork;
- Description of site restoration activities as required or approved by the property owner;
- Volume and location of where soils and affected water were disposed, including completed waste manifests or manifest summaries;
- A completed Inspection Form signed by CDOT maintenance staff verifying completion of work to CDOT's standards.

Two copies (preferably double-sided) of the closure report need to be provided within three months of completion of remediation, to:

Andy Flurkey
Colorado Department of Transportation, Property Management
15285 S. Golden Road, Building 47
Golden, CO 80401
Telephone: 303-512-5520 Fax: 303-512-5550
Email: Andy.Flurkey@dot.state.co.us

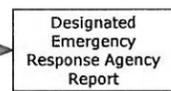
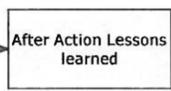
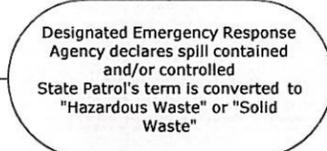
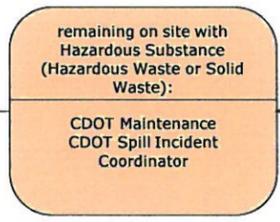
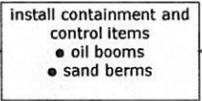
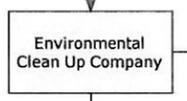
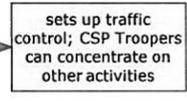
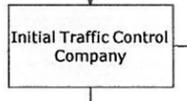
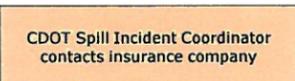
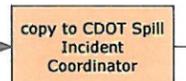
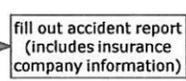
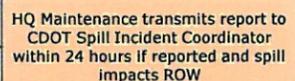
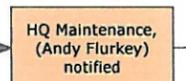
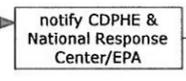
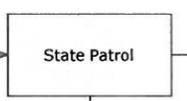
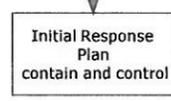
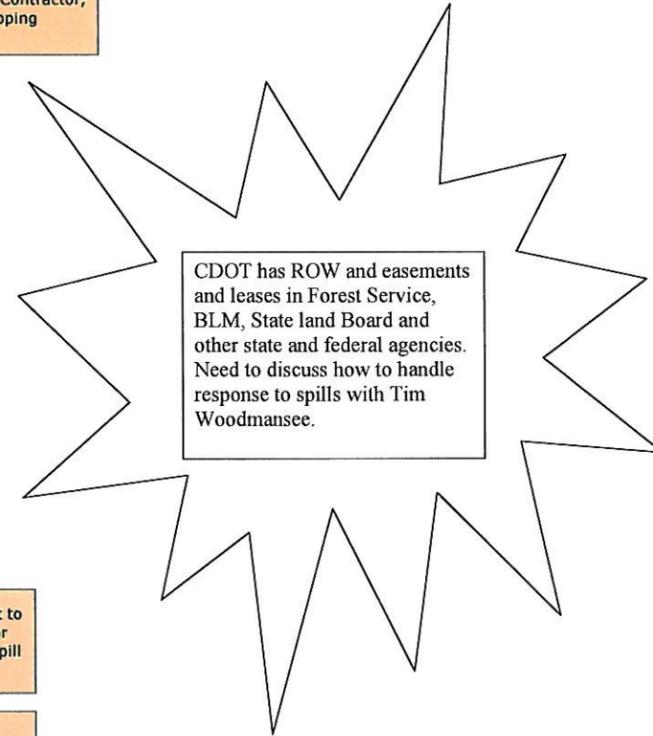
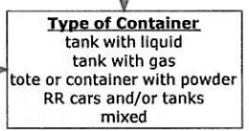
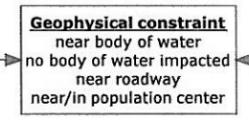
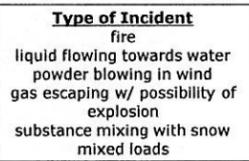
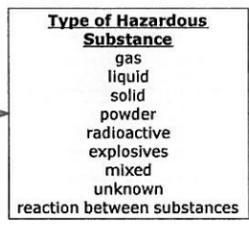
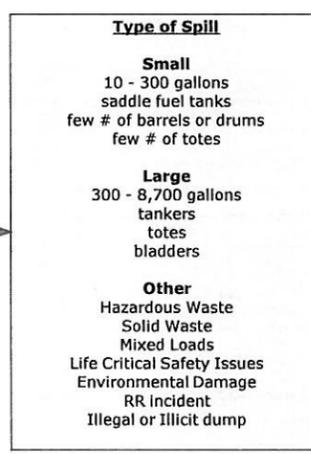
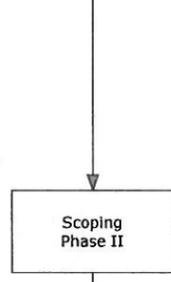


- Requests necessary response as needed
- initiates traffic control
- evacuates people and animals to a safe place
- coordinates with CSP Dispatch, local Fire Department, HAZMAT Team, CDOT Maintenance



- monitor clean up activities and evaluate actions during Phase II that will affect Phase III
- contaminated material will need to be excavated and hauled away (i.e., snow and road fill)
- infrastructure damage (i.e., HMA heat damaged, guardrail destroyed or is a safety issue)
- initial amounts of hazardous substance not accounted for during clean up and location is unknown
- monitor choice of Environmental Clean Up Contractor, especially when insurance company is shopping around for lower prices

INITIAL RESPONSE & SCOPING

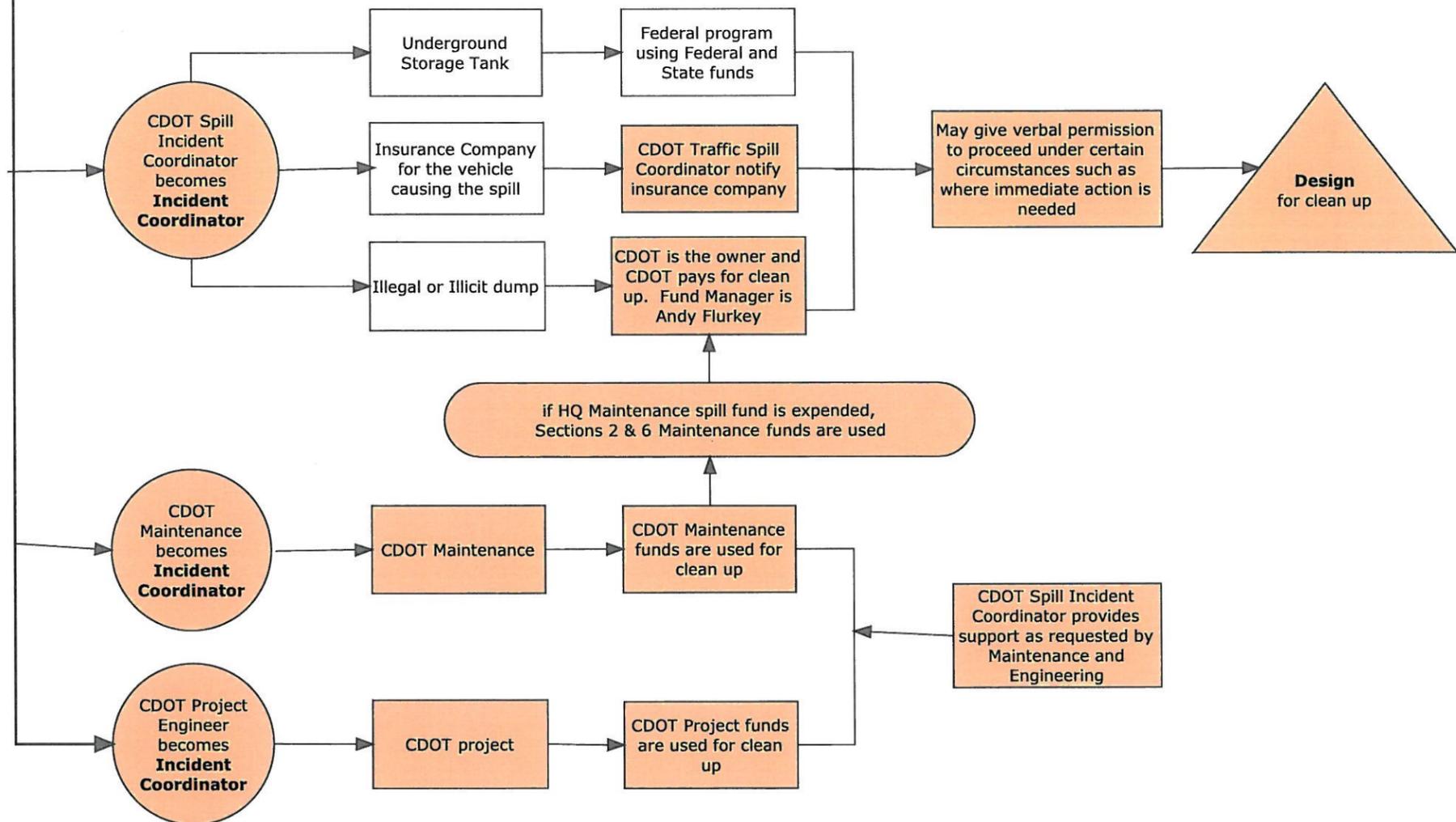


Phase III
 Spill Remediation and Restoration
 Remediation and Restoration proceeds under authority of C.R.S. 29-22 Hazardous Substance Incidents

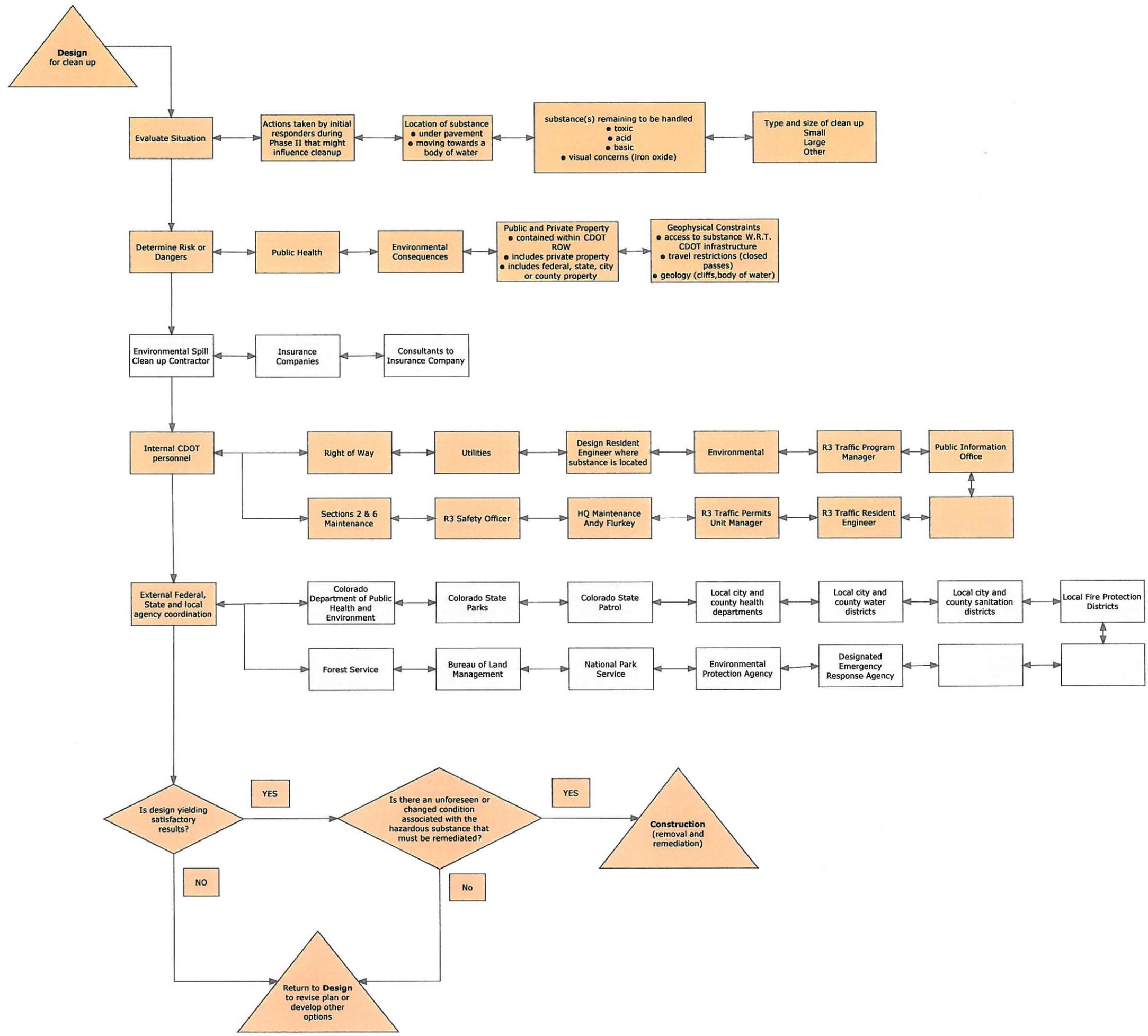
someone on CDOT staff becomes the **Incident Coordinator**

Funding
for clean up

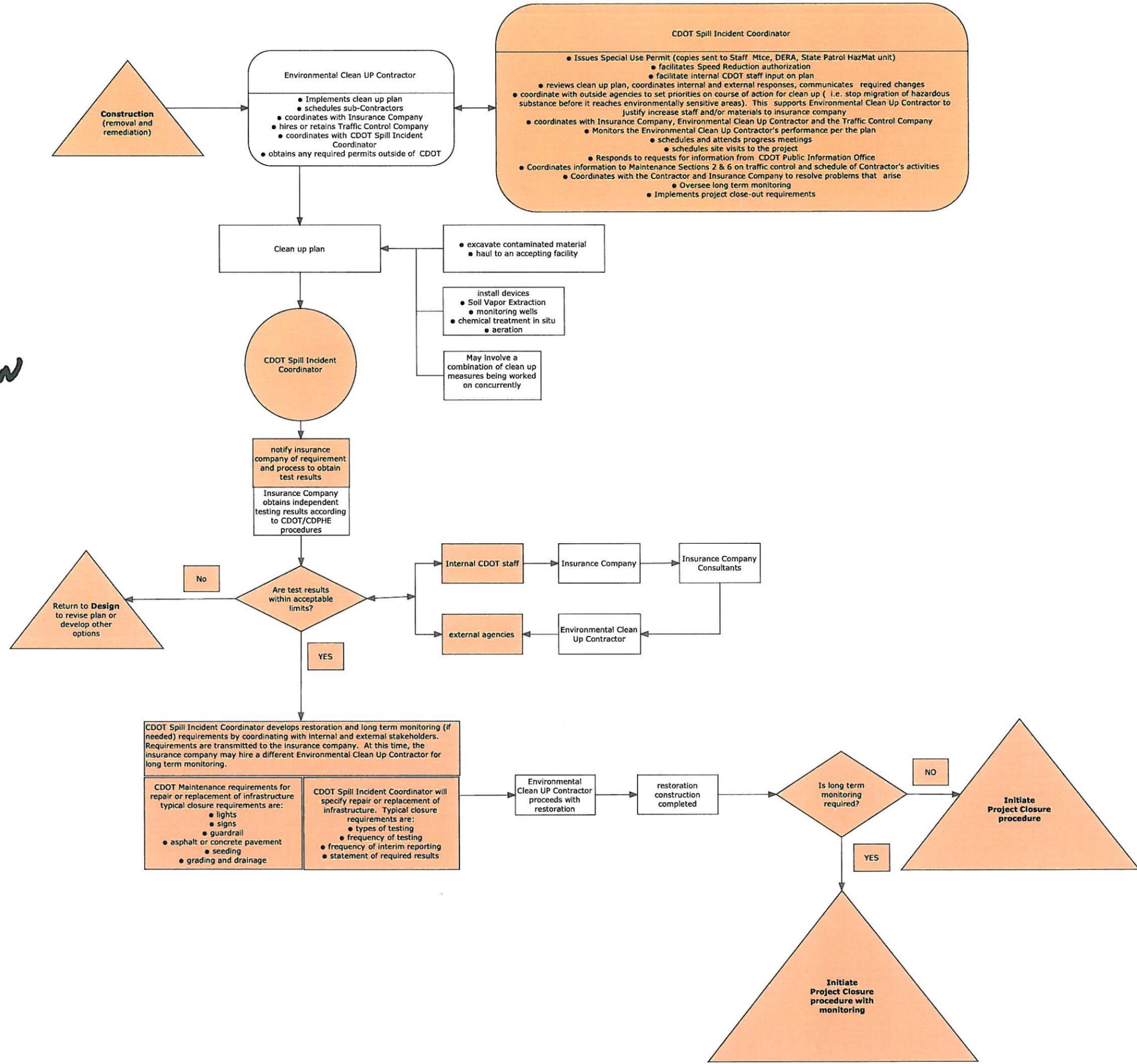
FUNDING



DESIGN



CONSTRUCTION



CDOT Spill Incident Coordinator

- Issues Special Use Permit (copies sent to Staff Mtce, DERA, State Patrol HazMat unit)
 - facilitates Speed Reduction authorization
 - facilitate internal CDOT staff input on plan
- reviews clean up plan, coordinates internal and external responses, communicates required changes
- coordinate with outside agencies to set priorities on course of action for clean up (i.e. stop migration of hazardous substance before it reaches environmentally sensitive areas). This supports Environmental Clean Up Contractor to justify increase staff and/or materials to insurance company
- coordinates with Insurance Company, Environmental Clean Up Contractor and the Traffic Control Company
 - Monitors the Environmental Clean Up Contractor's performance per the plan
 - schedules and attends progress meetings
 - schedules site visits to the project
- Responds to requests for information from CDOT Public Information Office
- Coordinates information to Maintenance Sections 2 & 6 on traffic control and schedule of Contractor's activities
- Coordinates with the Contractor and Insurance Company to resolve problems that arise
 - Oversee long term monitoring
- Implements project close-out requirements

Environmental Clean UP Contractor

- Implements clean up plan
- schedules sub-Contractors
- coordinates with Insurance Company
- hires or retains Traffic Control Company
- coordinates with CDOT Spill Incident Coordinator
- obtains any required permits outside of CDOT

Clean up plan

CDOT Spill Incident Coordinator

notify insurance company of requirement and process to obtain test results
Insurance Company obtains independent testing results according to CDOT/CDPHE procedures

Are test results within acceptable limits?

Internal CDOT staff

Insurance Company

Insurance Company Consultants

external agencies

Environmental Clean Up Contractor

CDOT Spill Incident Coordinator develops restoration and long term monitoring (if needed) requirements by coordinating with internal and external stakeholders. Requirements are transmitted to the insurance company. At this time, the insurance company may hire a different Environmental Clean Up Contractor for long term monitoring.

<p>CDOT Maintenance requirements for repair or replacement of infrastructure typical closure requirements are:</p> <ul style="list-style-type: none"> lights signs guardrail asphalt or concrete pavement seeding grading and drainage 	<p>CDOT Spill Incident Coordinator will specify repair or replacement of infrastructure. Typical closure requirements are:</p> <ul style="list-style-type: none"> types of testing frequency of testing frequency of interim reporting statement of required results
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Environmental Clean UP Contractor proceeds with restoration

restoration construction completed

Is long term monitoring required?

Initiate Project Closure procedure

Initiate Project Closure procedure with monitoring

CLOSURE

