Title
OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN

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Publication Date
1976-06-01

LBL-5317
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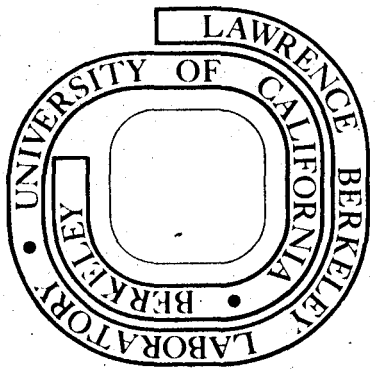
Jensen Young

June 1976

Prepared for the U. S. Energy Research and Development Administration under Contract W-7405-ENG-48



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DISCLAIMER

LBL-5317

Oil and Hazardous Substances Pollution Contingency Plan*

Jensen Young

Lawrence Berkeley Laboratory
Berkeley, California

June 1976

*Work performed under the auspices of the U. S. Energy Research and Development Administration.

CONTINGENCY PLANS FOR SPILLS OF HAZARDOUS MATERIALS

A. Federal Policy

"The Congress has declared that it is the policy of the United States that there should be no discharge of oil or hazardous substance into or upon navigable waters of the U. S., adjoining shorelines, or into or upon the waters of the contiguous zone." Sect. 311(b)(1) of the Federal Water Pollution Control Act.

(Comment: "navigable waters" has been interpreted to mean any stream of water which empties into a navigable body of water. This includes storm drainage systems.)

B. LBL Policy

The policy at LBL is to prevent the occurrence of hazardous material spills by facility design and preplanning. However, if a spill should occur, its effect on the surrounding population and environment will be mitigated by whatever means are available. Hazardous chemicals shall not be purposefully discharged upon any land within or outside the Laboratory, or into any storm drainage system or waterway.

C. Facility Design

Facility designs to eliminate spills are the following:

- Restraints to hold tanks of hazardous materials and oil in case of earthquake shocks
- Construction of berms or catchment basins around large amounts of hazardous materials which could drain into storm drains and get offsite
- Location of temporarily stored hazardous materials on dirt areas (to absorb chemicals).

D. Hazardous Materials and Quantities

Hazardous materials are defined as: flammable gas, liquid

solid; irritating material; etiological agent; corrosive material; radioactive material; explosives; or material not normally found in waterways in sufficient quantity to impair aquatic life; oils, except large quantities found in electrical transformers.

Spill quantities are hard to define. Small quantities of very hazardous material spilled into a waterway or caused to become airborne can be of as much concern as large quantities of lesser toxic material. In general, any quantity of hazardous material which can get offsite and become a nuisance or impair the quality of the environment should be reported.

E. Surveillance

Spills of hazardous materials usually occur in the presence of the person handling or transporting them. Consequently, this person becomes the source of primary surveillance.

Secondary surveillance will be carried out by members of the Laboratory Protection Department. They routinely patrol all areas at frequent intervals, 24 hours/day and 7 days/week. They will report any visible or suspected spill.

F. General Considerations

The primary concern in any spill of hazardous materials is to protect life and property. If the spill material is such that toxic gases are liberated, or fire or explosion could occur, evacuate the area immediately. Control the flow of persons and traffic away from the area. Keep upwind to stay away from the toxic gases or vapors.

Secondary concern is to protect the environment. Restrict the material to as small an area as possible.

G. On Site Spills

. Spills which can immediately affect life or property should be handled by whatever means are available to mitigate the problem, such as flushing the area or

property with large quantities of water.

. If time or circumstances permit, take whatever immediate action is appropriate to contain the material; e.g., sandbag the area, use dirt to dam up the gutters, divert the spill material to a dirt area, etc.

Spill Discovery

. Call: Regular hours: Safety Services X 5251
Off hours: Fire Department X 5333

. State "SPILL" - give your name, location, type and approximate quantity of material spilled, and other emergency information as necessary.

. Isolate area--direct persons and traffic away from spill.

. If material is flammable, isolate area from flames and other ignition sources.

Fire Department/Decon Procedures

. If hazardous material gets offsite, notify the Director's Office immediately. They in turn will contact the On Scene Coordinator at ERDA.

. Isolate area--direct persons and traffic away from spill.

. If material is flammable, isolate area from flames and sparking devices.

. Call additional personnel as required: Safety Services, Plant Protection, C & M Department.

. Collect material into pools by sandbags or squeeges, then pump into 55 gallon drums with Vanton pump. Residual material can be neutralized, then flushed away with water.

. Small spills may be better controlled and cleaned up with absorbent material.

. Wear SCBA and/or acid suit as necessary.

H. Offsite Spills

Transportation Driver

. First priority is to protect life and property by whatever means are available.

- If material is flammable, keep all flames and sparking devices away.
- Avoid breathing vapors of spilled material--stay upwind.
- Isolate area.
- Keep unnecessary people and traffic away.
- Have a responsible person stay at the spill site at all times. Depending upon the severity of the accident/spill, contact the California Highway Patrol (ZEnith 12000) or local Fire Department. Contact dispatcher (or supervisor) at LBL or LLL (site nearest to accident) and relay following information:
  - Your name
  - Location of accident
  - Personal injuries
  - Extent of damage
  - Identity and extent of material spilled
  - Possible pollution to area
  - Emergency procedures initiated
- Try to confine the spilled material to as small an area as possible. Try to prevent leakage into storm drains by damming the drainage area with dirt, or by channeling the material to a dirt area.

Dispatcher/Supervisor

Relay information about the accident/spill to Safety Services (extension 5251) or Hazards Control (extension 3816) immediately.

Safety Services/Hazards Control

- Inform Director's Office about nature of spill and send responsible person(s) to scene of accident/spill to evaluate the problem.
- Coordinate cleanup efforts with On Scene Coordinator (ERDA personnel).

On Scene Coordinator (ERDA personnel)

- Notify other federal agencies as required.
- Effect cleanup and disposal of spill material

either with LBL/LLL equipment and personnel, or via commercial vendors.

Cleanup Contractors -- these organizations are capable of handling complete cleanup operations (primarily oil spills), furnishing all necessary supplies, equipment and service.

Dell Chemical and Supply Company
4520 Horton Avenue
Emeryville, California
Regular daytime hours - phone 655-4489
Off hours - answering service - 986-1662

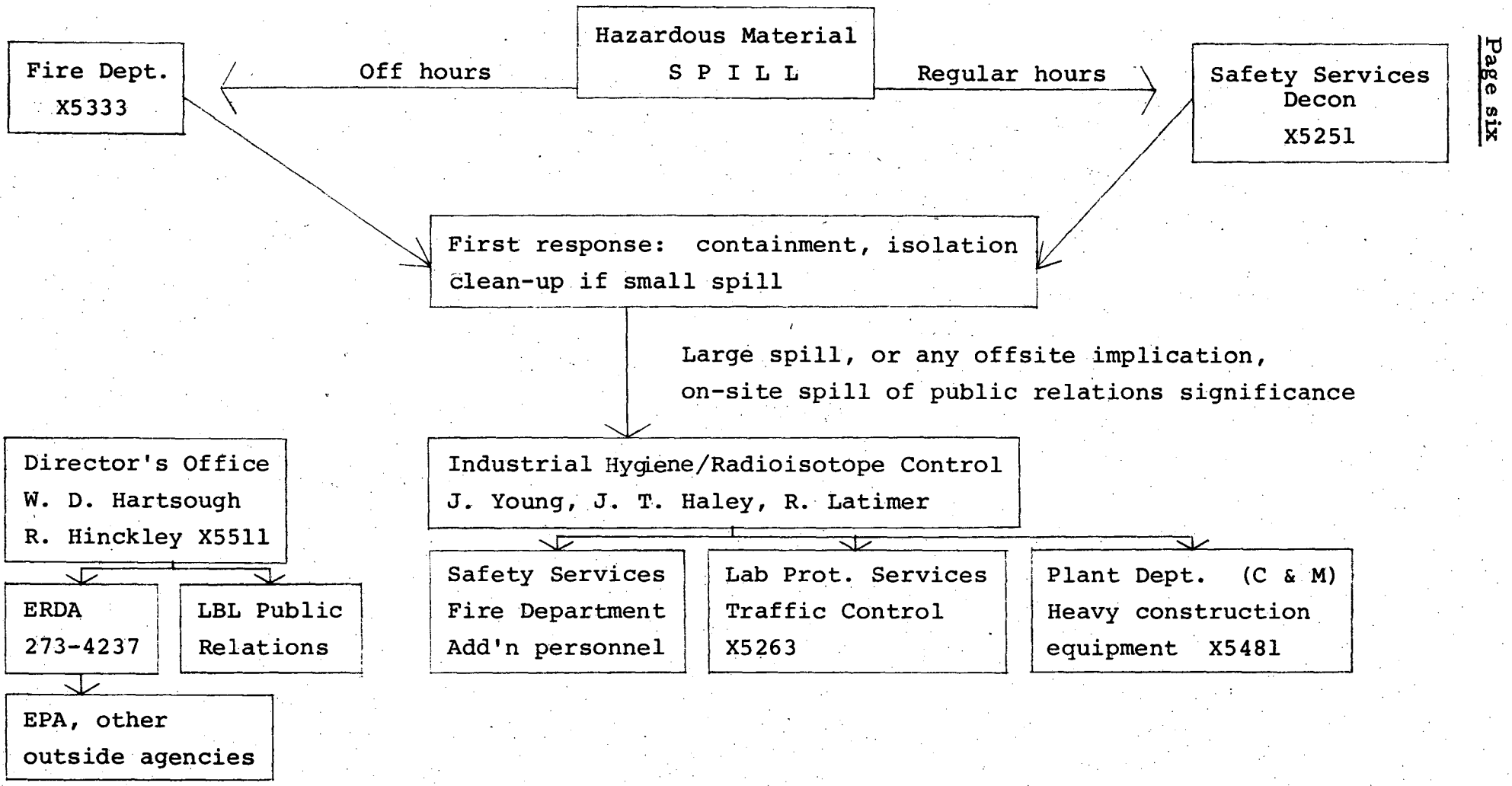
H & H Ship Service Company
San Francisco, California
phone 543-4835

I. Incident Reporting

The Director's Office will normally report spill incidents to the ERDA-SAN office, 273-4237. Spills of oil, hazardous materials, or pollutants in the following categories will be reported:

- Off site spills
- On site spills which do, or have the potential of getting off site
- On site spills of public relations significance.

Requests by other federal, state, or local officials to gain admittance to LBL to investigate any incident shall be directed through the Director's Office. Access will not be granted until permission is given by ERDA-SAN.


Hazardous Material
S P I L L
Off hours
Regular hours
Fire Dept.
X5333
Safety Services
Decon
X5251
First response: containment, isolation
clean-up if small spill
Large spill, or any offsite implication,
on-site spill of public relations significance
Director's Office
W. D. Hartsough
R. Hinckley X5511
Industrial Hygiene/Radioisotope Control
J. Young, J. T. Haley, R. Latimer
ERDA
273-4237
LBL Public
Relations
EPA, other
outside agencies
Safety Services
Fire Department
Add'n personnel
Lab Prot. Services
Traffic Control
X5263
Plant Dept. (C & M)
Heavy construction
equipment X5481

CONTINGENCY PLAN FOR OIL SPILLS FROM ELECTRICAL POWER TRANSFORMERS AND CAPACITORS

A. Surveillance

. The primary surveillance will be carried out by the Laboratory Protection Department. Its members routinely patrol all areas at frequent intervals twenty-four hours a day and seven days a week, and will report any visible spill or suspected spill to the maintenance machinist foreman.

Maintenance machinists will check sumps after each rainstorm for water accumulation. If no oil is present, they will drain the sump.

. Secondary surveillance will be carried out by maintenance machinists and other workmen who, upon observing a suspected spill, will notify the Laboratory Protection Department.

B. Investigation and Initiation of Action

. Upon receiving the report of a suspected spill, the maintenance machinist foreman will immediately dispatch personnel to the site to investigate and evaluate.

. If a spill has occurred, the investigating personnel will (1) notify the maintenance machinist foreman and (2) begin preliminary mop-up operations.

. If the spill has occurred during normal working hours, the maintenance machinist foreman will notify the oil spill monitor and the LBL Fire Department. If electrical equipment such as transformers are involved, he will also notify the maintenance electrical foreman and the designated electrical engineer as set forth in the existing Electrical Emergency Plans.

. If the spill has occurred during off-hours (e.g. weekends or nights), the maintenance machinist foreman will investigate and evaluate the extent and character of the spill. If the spill is a minor one of little

consequence, he will supervise the mopping-up operations and record the event.

If, in his judgment, the spill requires more attention, he will immediately phone the oil spill monitor, notify the Fire Department and (if applicable) notify the maintenance electrical foreman and the electrical engineer.

. The oil spill monitors are members of the Safety Services Department who have been designated to supervise the cleaning up of major and dangerous spills.

Upon notification of a spill, the oil spill monitor will immediately investigate and evaluate the spill. He will determine the type of action to be taken, the number of personnel required, and the type and quantity of equipment required. He will take appropriate steps to obtain such personnel and equipment, and he will supervise the clean-up. He will also record and report the event to the proper authorities.

C. Equipment, Material and Manpower Available to Control and Remove Any Harmful Amounts of Oil Discharges

. The LBL Fire Department with its fire fighting equipment is immediately available.

The Berkeley Fire Department is available within 10 minutes if needed.

. The maintenance machinists are immediately available at all times.

. Laborers, electricians and other personnel are immediately available during working hours and on-call during off-hours.

. Available equipment includes ample quantities of tools, pumps, fork lifts, cranes, trenchers, etc.

D. Handling PCB's in Power Transformers and Capacitors

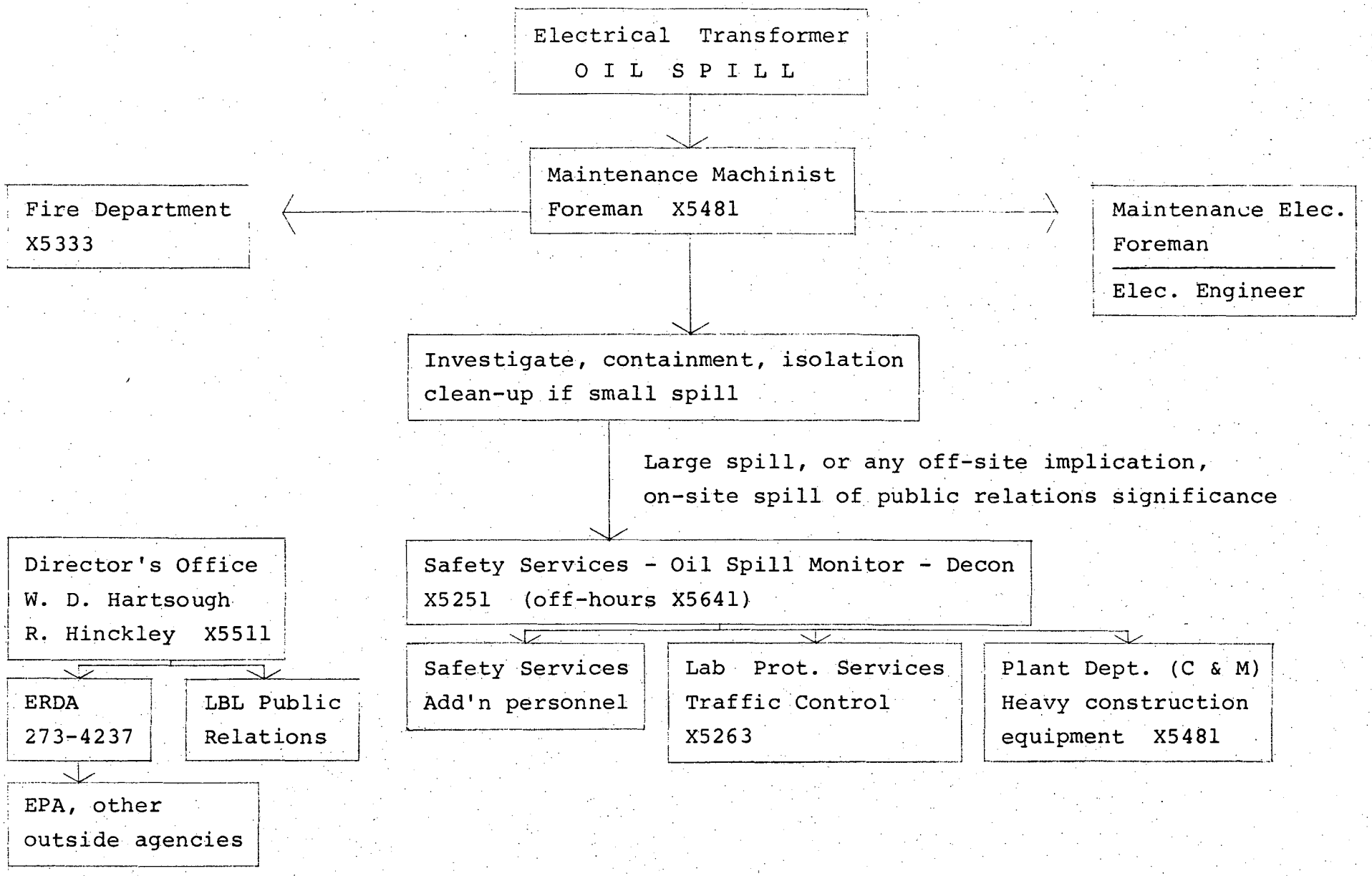
Most power transformers contain a hydrocarbon-type oil for insulation; two units, however, contain askeral, a polychlorinated biphenyl (PCB). Most capacitors contain PCB's.

Because of the increased concern of finding PCB's in the environment, and because of some human toxicity effects, any spilled material is to be handled carefully. Collect askeral by use of absorbents and place it and any contaminated material in covered drums. Wear gloves to prevent skin contact. Label drum for future disposal by the Safety Services Department.

The following units contain askeral:

Power transformers
- B 50A basement
- B 50B basement

Large capacitors
- B 51 outside MG room
- Big "C"
- B 71, northwest corner


Electrical Transformer
O I L S P I L L
Maintenance Machinist
Foreman X5481
Fire Department
X5333
Maintenance Elec.
Foreman
Elec. Engineer
Investigate, containment, isolation
clean-up if small spill
Large spill, or any off-site implication,
on-site spill of public relations significance
Director's Office
W. D. Hartsough
R. Hinckley X5511
Safety Services - Oil Spill Monitor - Decon
X5251 (off-hours X5641)
ERDA
273-4237
LBL Public
Relations
Safety Services
Add'n personnel
Lab Prot. Services
Traffic Control
X5263
Plant Dept. (C & M)
Heavy construction
equipment X5481
EPA, other
outside agencies

TECHNICAL INFORMATION DIVISION
LAWRENCE BERKELEY LABORATORY
UNIVERSITY OF CALIFORNIA
BERKELEY, CALIFORNIA 94720