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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990
NUCLEAR AND MIXED WASTE MANAGEMENT PROGRAM
HANFORD PROJECT
DANGEROUS WASTE PERMITTING VISIT
BUILDINGS 616 AND 305B

1. Introductory information:

Name and Address of Owner:
U. S. Department of Energy (DOE-RL)
Richland Operations Office
P.O. Box 550
Richland, WA 99352

ID Number: WA7890008967

Date and Time of Inspections:
December 17, 1992 0900-1600 hours
December 18, 1992 1900-1630 hours

Operators/Contractors:
Westinghouse Hanford Company (WHC)
P.O. Box 1970
Richland, WA 99352

Pacific Northwest Laboratories (PNL)
P.O. Box 999
Richland, WA 99352

Phone Number and Contact:
Matthew La Barge
WHC, RCRA Compliance
(509) 376-7776

Date of Inspection Report:
January 25, 1993

Randy Krekel
DOE-RL Environmental Assurance and Permitting
(509) 376-4264



Type of and Reason for Inspection:

Completion assessment performed by Environmental Protection Agency (EPA) prior to issuance of the Hanford Facility Hazardous Waste Permit. Inspection specifically involved waste management practices and waste analysis programs of the 616 and 305B Treatment, Storage, and Disposal (TSD) facilities. The Washington State Department of Ecology (Ecology) participated in the visit for observation purposes.

Report Prepared by: Steve Moore
Inspection Conducted By: Dan Duncan, EPA Region 10
Steve Moore, Ecology

Signature

Review Signature

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Personnel contacted during this inspection included:

| | |
|---------------------|----------------------|
| M.J. La Barge, WHC | R.N. Krekel, DOE-RL |
| M.R. Romsos, WHC | R.C. Bowman, WHC |
| S.A. Szendre, WHC | D.G. Saueressig, WHC |
| G.T. Thornton, PNL | J.W. Pratt, WHC |
| J.A. Lerch, WHC | K.S. Webster, PNL |
| W.J. Bjorklund, PNL | D.L. Klages, PNL |
| A.G. King, PNL | |

2. Description of Facility, Wastes Generated

A. General

Buildings 616 (616) and 305B (305B) are both interim status TSD units for waste storage on the Hanford Federal Facility (Hanford). Final facility permits for both facilities are pending final EPA and Ecology approval.

616 is located between the 200 East and 200 West areas on Hanford. 616 is operated by WHC and supports dangerous waste (DW) generators throughout Hanford. 616 does not store radioactive mixed waste (RMW). DW from 616 is shipped off-site for treatment or disposal.

305B is located inside the boundaries of the 300 Area on Hanford. 305B is operated by PNL and supports DW and RMW storage primarily from PNL generators within the 300 Area. 305B also receives waste shipments for storage from PNL affiliates off the Hanford site. DW from 305B is shipped off-site for treatment or disposal. RMW from 305B is shipped to the Central Waste Complex in the 200 West Area for long term storage.

B. Wastes Generated

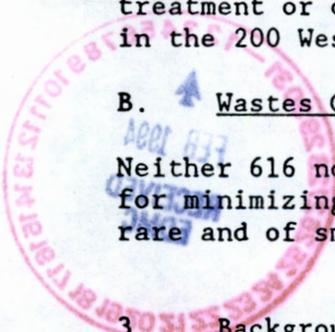
Neither 616 nor 305B perform treatment of waste. 305B operates a bulking area for minimizing waste volume. Generation of DW or RMW from either facility is rare and of small quantity.

3. Background and Description of Inspection

Site Visit December 17, 1992

Dan Duncan (EPA, Region X) met me in the Ecology Kennewick office at 0900 hours. Dan explained the primary purpose of his visit was to assess the adequacy of the waste analysis plans (WAP) at both 616 and 305B. His intention was to make the visit an information gathering event instead of an official EPA investigation. He wanted to learn how the contractors managed DW and RMW from generation through storage at 616 or 305B to disposal, treatment or long term storage. Laura Russell (Ecology) had provided Dan with a copy of

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9413137-1648

a report of an Ecology inspection of 305B. I offered Dan my assistance during the visit, and we agreed I would go along to observe. We proceeded to 740 Stevens Center for an entrance meeting with DOE-RL and its contractors.

Dan and I arrived at Stevens Center at 1000 hours and met with WHC, PNL, and DOE-RL personnel (attachment A). Dan began the entrance meeting stating his intention to perform the visit as an information gathering exercise instead of an EPA investigation. He explained his desire to assess the areas of waste management Ecology has not been granted authority to regulate, like land disposal restricted (LDR) wastes and toxic characteristics (TC) waste. Additionally, he intended to perform a completeness assessment of the draft facility permits. He asked if there would be any higher tier documents than the final facility permits when issued. Roger Bowman (WHC) said the Hanford Site Solid Waste Acceptance Criteria manual (WHC-EP-0063) and another document for waste designation would be the guides followed, even after issuance of the permits. Dan described his intention of learning how waste is generated, stored, and shipped, and provided specific questions he would be asking people during the visit including:

1. How are TC wastes managed?
2. How are LDR wastes managed?
3. What analyses are performed during designation and at the TSD's?
4. What actions are taken when improper designations are discovered?
5. What waste verifications are done at 616 and 305B?

After the initial presentation was completed by Dan, it was agreed Mike Romsos (WHC), Randy Krekel (DOE-RL), Matt La Barge (WHC), and Glen Thornton (PNL) would accompany Dan and me to 616. Following the visit to 616, we would go to the Solid Waste Engineering (SWE) offices in trailer 57 by WPPSS #1 because all of the necessary documentation would be available there. An exit meeting was scheduled for 1600 hours back at Stevens center.

We arrived at 616 at 1145 hours. Jeff Pratt (WHC), the 616 manager, made himself available in the front office of 616 to assist Dan during the visit. Dan explained the purpose of the visit and asked to have documents provided that explain the current 616 waste analysis program, including procedures, and the documents that dictate waste management practices at 616. Dan asked Mr. Pratt to explain how waste is sent to 616. Mr. Pratt explained how a waste generator first submits a Hazardous Waste Disposal Action Request (HWDAR) to SWE and 616. Following approval of the HWDAR, 616 receives a list of expected shipments with information on the wastes that will be received. Dan then began the following question and answer period (paraphrased below based on a review of my field notes):

- Q. How does 616 verify the waste container contents?
- A. Pratt: We assume the generator performs the designation properly.
Romsos: We don't do any verification sampling.
Pratt: A drum we received from Hanford Environmental Health Foundation (HEHF) was expanding, so we sampled it.

- Q. So you rely on the Burlington 10% verification sampling?
- A. Pratt: Yes. We also have many systems in place to ensure the generators designate waste properly.
- Q. What are the other systems?
- A. Pratt/Romsos/Krekel: Training, 90-Day storage area surveillances, reviews by SWE, etc.

I went outside at about 1200 hours to receive a phone call on my cellular phone and took photographs of the 616 exterior (attachment B). When I returned inside, Dan was asking questions about the expanding drum from HEHF.

- Q. What procedure does 616 use for waste sampling?
- A. Pratt: Provided a waste analysis procedure and then said it was no longer in effect because the contract with the off-site laboratory had expired. Said there was another procedure, but it was not at 616, and he would provide it to Dan later.
- Q. What procedure was used for the expanding drum?
- A. Pratt: Don't know, will have to find out later.
- Q. What was the cause of the expanding drum?
- A. Romsos: Sulfamic acid mixed with metals reacted to produce gases that pressurized the drum. HEHF was venting the drum initially during accumulation period but the reaction stopped. We assume the waste was agitated during shipment which caused the reaction to restart. Our analysis indicated the initial designation of sulfamic acid and metals was correct, the problem was not predicting the agitation.
- Q. Have there been any other incidents?
- A. Romsos: Yes, there have been two others. In the first incident, two drums of waste, one pH <2 and the other pH >12.5, had their labels reversed. The problem was discovered by the off-site TSD (Burlington). In the second, Burlington's analysis said the flashpoint of a drum was different from the one reported on the shipping documents. I think they said 106°F and we said 98°F.
- Q. You haven't included any analysis procedures in your Part B permit application, right?
- A. Romsos/Krekel: Yes, we referred to them in the application. We did not want to revise the Part B to make small changes in sampling procedures.

Dan asked for records throughout the exchange, and Mr. La Barge was responsible for collecting those records not provided immediately. Dan ended the discussion and asked for a tour of the facility. I photographed the storage cells (attachment C) and was unable to take notes of the questions Dan asked during the tour. After the facility tour, I exited the building from the 1B flammable cell to photograph the remainder of the building exterior. When I finished and returned to the 616 office, Dan was ending the visit. He asked if I had any questions or comments. I recommended Dan request an

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operating record from a waste shipment originating from Kaiser Engineers Hanford (KEH) that was sent to 616 so he would get an indication of intra-contractor waste management operations. The 616 visit was ended at 1230 hours and we proceeded to trailer 57 near WPPSS #1.

We arrived at trailer 57 at 1300 hours. An area in the lunch room was made available for the meeting and the group agreed to have a working lunch. Mr. Romsos provided some of the operating records Dan requested at 616 to start the meeting. Dan reviewed some of the records before beginning his questioning. Jeff Lerch (WHC) joined the meeting to provide information about off-site laboratories under contract with WHC. Dan then began the following question and answer period (paraphrased below based on a review of my field notes):

- Q. What off-site labs does WHC use?
A. *Lerch:* Data Chem, SQ, TMA, and Weston. All four labs do DW sampling, while TMA and Weston also perform radioactive sampling.
- Q. What on-site lab capability exists?
A. *Lerch:* 222S and PNL have limited capacity/capability, so they are only used for higher level radioactive sampling.
- Q. Have you been out to inspect the off-site labs?
A. *Lerch:* Yes, each was assessed before the contracts were issued and are assessed bi-annually. The bi-annual assessments are new and were not done before because the legal department would not allow them previously.
- Q. Do you have copies of the assessments? How are they performed?
A. *Lerch:* Yes, TMA and Weston are the most recent. We use a checklist.
- Q. Are the contract labs certified?
A. *Lerch:* No, there really isn't a laboratory certification process. WHC uses the "Statement of Work" from the contract and the assessments to accept a lab.
- Q. Who are your primary customers?
A. *Lerch:* Primarily, WHC environmental units and expedited response areas. Secondary, RCRA closures, sampling, etc. Now the individual facilities are beginning to use off-site laboratories.
- Q. What problems have you had with the labs?
A. *Lerch:* Turn-around times for radioactive samples from TMA and Weston have been slow. Non-radioactive samples from all four labs have been turned around within Tri-Party Agreement (TPA) requirements.
- Q. Have there been any problems with lab analysis?
A. *Lerch:* Overall performance has been good. No real problems. WHC QA, OSM, and Environmental groups take part in the assessments.

- 9413137-1651
- Q. What does 222S lab do?
A. *Lerch*: Mainly radiation screening for off-site sample shipments. Normally, 222S does not support on-site waste characterization for non-radioactive waste.
- Q. What do you do for LDR and TC wastes?
A. *Lerch/Romsos*: We have lists and notifications that go with shipping papers.
- Q. How about TC waste. Do you do anything else?
A. *Lerch/Romsos*: Manage as hazardous waste. TC waste has no treatment standards.
- Q. Who does internal audits on Hanford?
A. *Lerch/Romsos/La Barge*: Environmental compliance verification group performs audits of all phases of waste management. SWE audits RMW against the guidelines in the 0063 manual.

Following these questions, Dan asked if I had any questions or comments. I asked how WHC determines if a shipment received at 616 is an on-site or off-site shipment and when they use a uniform manifest. Mr. Romsos said the Hanford site has one EPA ID number and all shipments are on-site. I asked if that meant there was no requirement for a manifest. Mr. Romsos said manifests are used for shipments on Hanford to meet Department of Transportation requirements. Mr. Romsos asked that we postpone questions concerning the one EPA number and manifesting issues, because it was a subject WHC and DOE were wrestling with. He said a proposal had been made to begin using rail shipments from areas outside the Wye barricade to alleviate the need for manifesting. I verified that Mr. La Barge would be responsible for collecting all the records requested, and Mr. Krekel would be the DOE-RL contact who would send them to Dan at EPA. The closeout meeting originally agreed to during the entrance meeting was changed to Friday, December 18 so there would be one meeting to cover both days of the EPA site visit. Dan and I returned to the Ecology Kennewick office at 1600 hours.

Site Visit December 18, 1992

Dan met with Laura Russell in the Ecology Kennewick office at 0730 hours. They discussed the events of the previous day and the following issues and questions Dan had:

1. WAP's need to be stand-alone plans instead of dependent on multiple outside documents.
2. 616 does not perform any waste verification sampling.
3. Does WHC do audits or surveillances on waste handling activities?
4. Is waste received the same as what is indicated on the manifest?
5. Waste transfers between generators and 616 are dependent on SWE for designation, document preparation, and characterization.
6. The determination between on-site verses off-site for waste transfers is an issue that needs to be addressed. Example: A waste transfer from the 1100 Area to 616.

I arrived at 0815 hours from an earlier meeting, midway through their discussion. Dan felt he would probably submit a notice of deficiency (NOD) after he completed his record review. He planned on determining whether a NOD was appropriate after discussing the issues with EPA management and Ecology. Dan and I left for the site at 0830 hours.

We arrived at building 337 in the 300 Area at 0855 hours. An area in the cafeteria was made available for our meeting. Representatives from PNL, WHC, and DOE-RL were all present. Dan began the meeting by explaining again that he was performing a completeness assessment of the final permit for 616 and 305B and that he considered his presence on site as a visit and not an EPA inspection. He provided an overview of the information he wished to obtain and then presented the following specific items:

1. Frequency and number of verification samples taken by 305B.
2. Does 305B/PNL perform duplicate samples, sample spikes, etc.
3. Names of on-site and off-site labs used by 305B/PNL.
4. Statement of work for contract labs, QAPP, surveillances.
5. Name of the current contract lab(s).
6. 305B procedures/documents for waste management including WAP, the Chemhaz and Haztrack databases, and manifests.
7. Problems found using the WAP.
8. Number of generators who send waste to 305B from on and off-site.
9. Documentation of compliance with LDR and TC waste requirements.
10. Problems with the off-site labs.

Mr. Bjorklund began addressing the specific issues by describing how PNL has improved waste management practices over the last four to five years. He explained that most wastes received by 305B are discarded chemical products, chemical mixtures or results of exhausted chemical processes. All PNL waste management is controlled by the Environmental Compliance/Waste Management group. The Environmental Compliance/Waste Management group oversees waste designation, shipping, storage, and documentation. The off-site TSD (Burlington) performs 10% verification sampling of waste sent from 305B. PNL relies on their "100% check of generator activities" and does not perform any verification sampling at 305B.

After Mr. Bjorklund's presentation, Mr. Kyle Webster (PNL, 305B manager) discussed a flowchart and the Chemical Disposal/Recycle Request (CDRR) describing waste management at PNL (attachment C). Mr. Webster explained how the individual generators provide the information to the Waste Management group using the CDRR. The Waste Management group then performs the actual designation of the wastes, coordinates the waste shipment, and provides oversight to ensure the waste is managed properly. Dan asked for a list of hazardous waste coordinators and generators that send waste to 305B. He also asked for the PNL waste designation manual/procedure.

Ms. Deanna Klages then provided information on waste designation, sampling, and the off-site labs. PNL's current laboratory is Eureka. Last year PNL stopped using HEHF because they did not have RCRA QA plans. The Eureka contract has provisions for both Hanford and non-Hanford PNL activities. PNL is pleased with the performance of the Eureka lab. Dan asked for copies of

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the QA plans of the lab and the contract requirements for LDR and TC wastes. Dan asked if I had any questions or comments. I asked how PNL determines when a waste shipment is on-site or off-site and when they require a uniform manifest. The replies from Mr. Bjorklund, Mr. Thornton, and Mr. Krekel were mixed. They said on-site shipments do not require manifests and Hanford is one RCRA site with one EPA/State ID number. I asked if manifests are used to ship RMW to the Central Waste Complex. They said manifests are not required. I said they were crossing a public access road and Department of Transportation regulations required the use of a manifest. They said they use manifests but they are not required. I then ended the questions because I was going beyond the scope of the visit. After the presentations by PNL staff, Dan asked to proceed to 305B for a facility tour.

We arrived at 305B at 1100 hours where Dan and I signed into the facility visitor's log. Mr. Webster then led us through a facility inspection. I photographed the storage areas (attachment B) and was unable to take notes on questions Dan asked during the walk-through. The inspection started in the non-radioactive DW storage areas (cells 1 through 6 and 8 through 14) upstairs and then proceeded to the RMW storage area (cell 7)(attachment C). After completing the facility inspection, we went to the 305B office to see the Haztrack data base. Dan requested a report of LDR and TC wastes managed at 305B. Mr. Webster said that wasn't a normal report they prepare, but he would try to obtain it. We then went to the 325 building to tour the PNL laboratory facility.

We arrived at the 325 building (325) at 1320 hours and met with Mr. A.G. King, the facility manager, in his office. Mr. King provided a history of the facility over the last two years. He explained the work done at 325 and the services available to other Hanford groups. After the discussion period, Mr. King escorted us on a partial tour of 325 and provided Dan and I with a map and photographs of the newer labs set up in 325. After the tour, we left to meet in Stevens Center for an exit meeting.

The exit meeting at Stevens Center began at 1510 hours. Dan asked for the records he requested the past two days be sent to him at Region X as quickly as possible so he can begin his review and make his conclusions. Dan shared the following questions as some of the issues he needs to resolve:

1. How do the contractors verify sampling/characterization?
2. Are the WAP's in the current permit application complete?
3. Are laboratory QA/QC programs compliant?

Dan felt the visit should enable him to make his conclusions once he receives the requested records. Mr. Bowman asked what Dan felt about the current WAP's and permits. Dan said it would be premature to discuss any feelings he had, but it should be anticipated that the WAP's will need to be complete, stand-alone, enforceable documents. Mr. Romsos asked when to expect a NOD from EPA. Dan said if the records were sent soon enough he may be able to respond by the end of January. Dan then explained how EPA had to ensure compliance with LDR and TC regulations and how the whole permit will continue to be coordinated by

Ecology. Dan also expressed his appreciation for the efforts taken to coordinate the visit and having the right people available to answer his questions. The meeting was then ended.

4. Attachments

- A. Meeting Attendance Sheets
- B. Photograph Log
- C. PNL Information Packet

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NUCLEAR AND MIXED WASTE MANAGEMENT PROGRAM
HANFORD PROJECT

DANGEROUS WASTE PERMITTING VISIT

ATTACHMENT A

9413137.1655

1/8/93 10:00AM

From : Matthew J La Barge at ~WHC155
 To : Steve Moore FAX# 95462976 at -FAX
 Subject : 616 SUMMARY AND AIRLANCE LETTER

 Message Contents

SUMMARY OF REGULATORY AGENCY VISIT

DATE: December 17 & 18, 1992

REGULATORY AGENCY: EPA Region 10 and Ecology

REGULATORY AGENCY PERSONNEL: Dan Duncan, EPA and Steve Moore, Ecology

WHC REPRESENTATIVE: Matt La Barge, RCRA Compliance Support

FACILITY CONTACTS: Jeff Pratt, 616 Operations Supervisor
 Mike Romsos, Solid Waste Engineering
 Jeff Lerch, HSM
 Roger Bowman, RCRA Permitting
 Dan Saueressig, RCRA Permitting
 Glenn Thornton, PNL
 Harold Tilden, PNL
 Bill Bjorklund, PNL
 Deanna Klages, PNL
 Kyle Webster, PNL
 Steve Szendre, WHC
 Kathy Poston, PNL
 A. Gaylord King, PNL

PURPOSE OF VISIT: To gather information on the 616 and 305-B Waste Analysis Plans (WAP) in support of final approval of the Part B permits. Mr. Duncan wanted to assess the adequacy and completeness of the the WAPs.

SUMMARY OF VISIT: No significant deficiencies were discussed during the visit. Mr. Duncan's primary concern related to the process used to characterize and verify waste characteristics. Additional information was requested to support his evaluation (see attached). No definitive determination will be made until this additional information is reviewed by EPA. A response is expected by the end of January.

INFORMATION REQUESTS: See attached list. Below are the responsible persons for the various information:

- Mike Romsos is responsible for #4, 8, 9, 15, and 16.
- Jeff Pratt is responsible for #1 and 2.
- Jeff Lerch is responsible for #10 - 12.

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12/18/92 KICKOFF MEETING ATTENDANCE (337 CAFETERIA)

Randy Krekel (DOE-RL)
Kyle Webster (305-B Operations Supervisor / PNL)
Bill Bjorklund (Waste Management Section Manager / PNL)
Harold Tilden (Environmental Compliance Section Manager / PNL)
Brian Day (RCRA Permitting Lead / PNL)
Deana Klages (Analytical Laboratory Contract Technical Administrator / PNL)
Matt La Barge (WHC)
Glenn Thornton (Environmental Assessment Coordinator / PNL)
Dan Duncan (EPA)
Steve Moore (Ecology)

305-B STAFF

Kevin Selby (RMW Engineer / PNL)
Don Klages (Solid Waste Operations / PNL)
Joel Tanasse (Solid Waste Operations / PNL)

325 STAFF

Gaylord King (Chemical Sciences Department Manager / PNL)
Kathy Poston (Environmental Compliance Manager, Matl. & Chem. Sciences Center / PNL)

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NUCLEAR AND MIXED WASTE MANAGEMENT PROGRAM
HANFORD PROJECT

DANGEROUS WASTE PERMITTING VISIT

ATTACHMENT B

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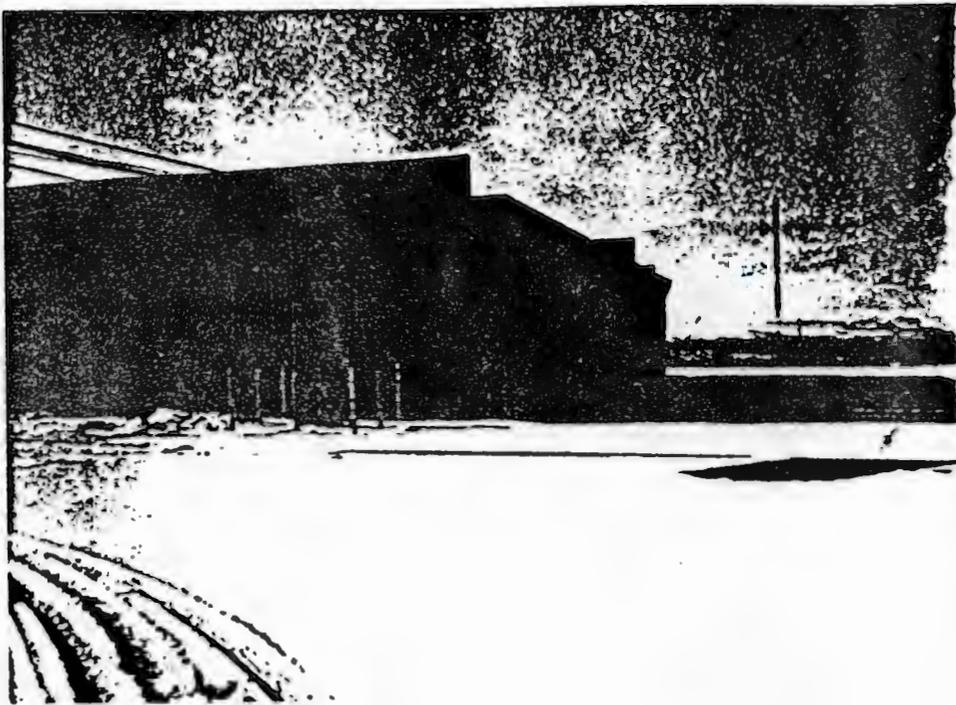
NUCLEAR AND MIXED WASTE MANAGEMENT PROGRAM
HANFORD PROJECT

DANGEROUS WASTE PERMITTING VISIT
PHOTOGRAPH LOG

BUILDINGS 616 AND 305B

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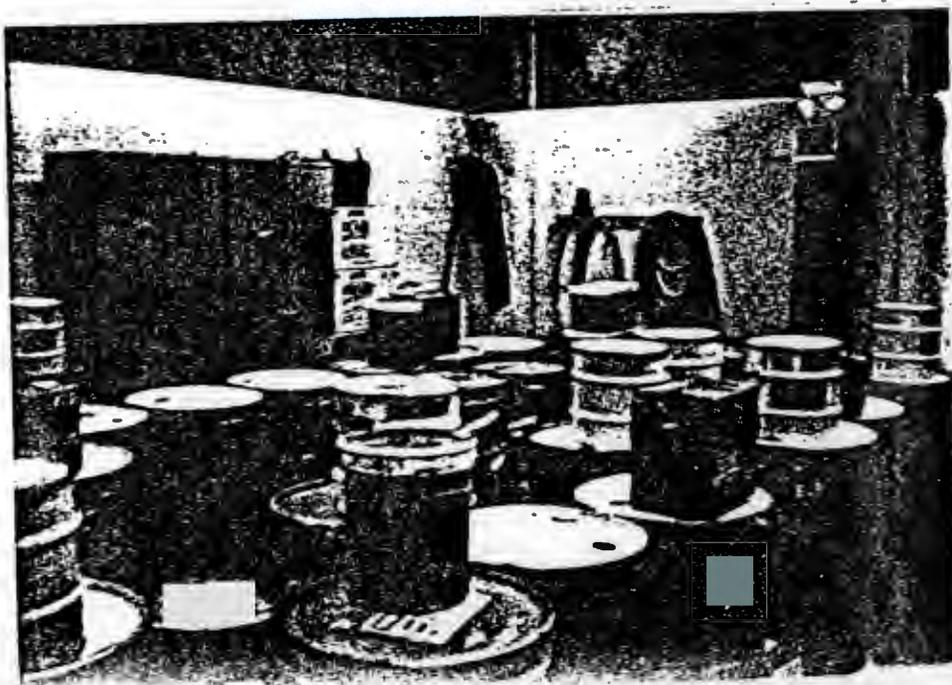
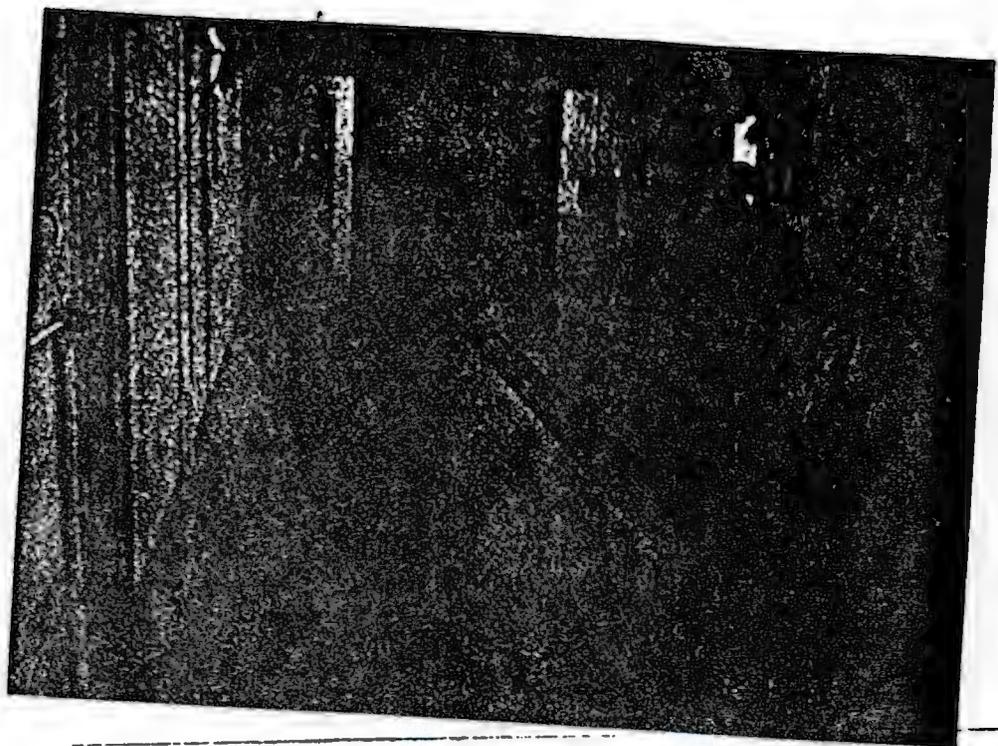
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|---|-----|----------------------|---|
| 3 | SVM | 12/17/92 1200 HRS | OUTSIDE BUILDING 616 FROM S (SHOWS SOUTH SIDE OF BUILDING) |
| 4 | SVM | 12/17/92 1237 HRS | RECEIVING AREA FACING NORTH |

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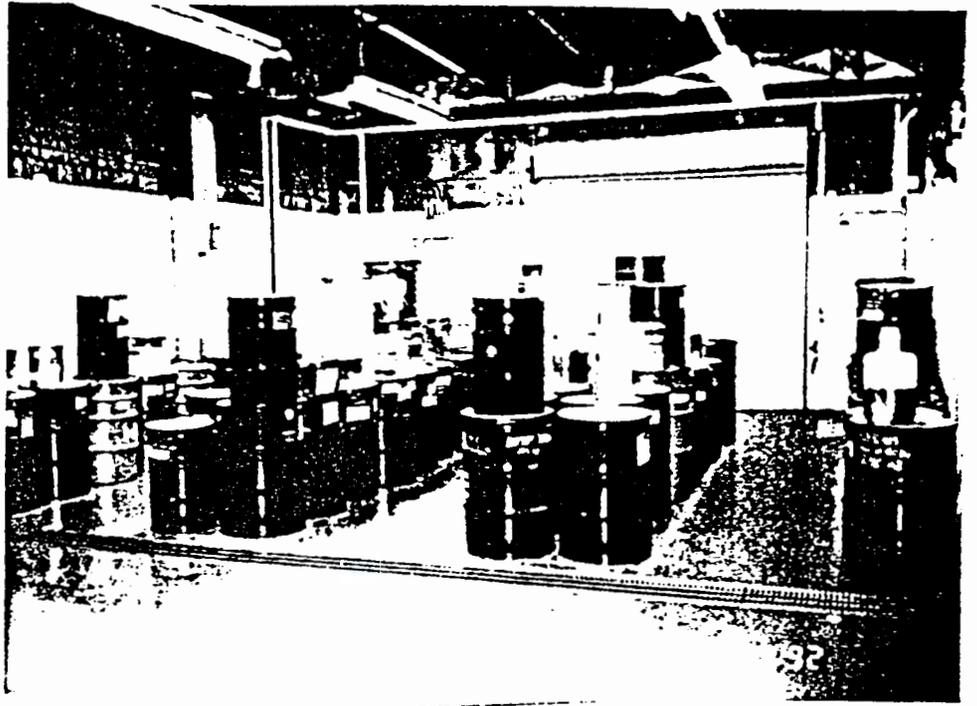
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|---|-----|----------------------|----------------------------|
| 7 | SVM | 12/17/92 1245 HRS | OXIDIZER CELL FACING SOUTH |
| 8 | SVM | 12/17/92 1245 HRS | CAUSTIC CELL FACING NORTH |

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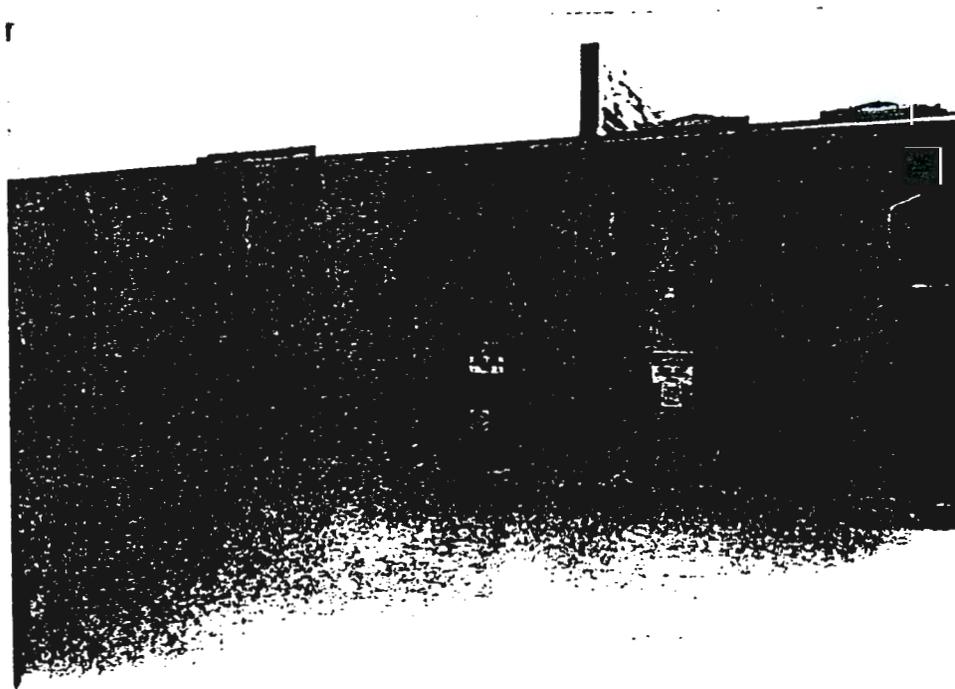
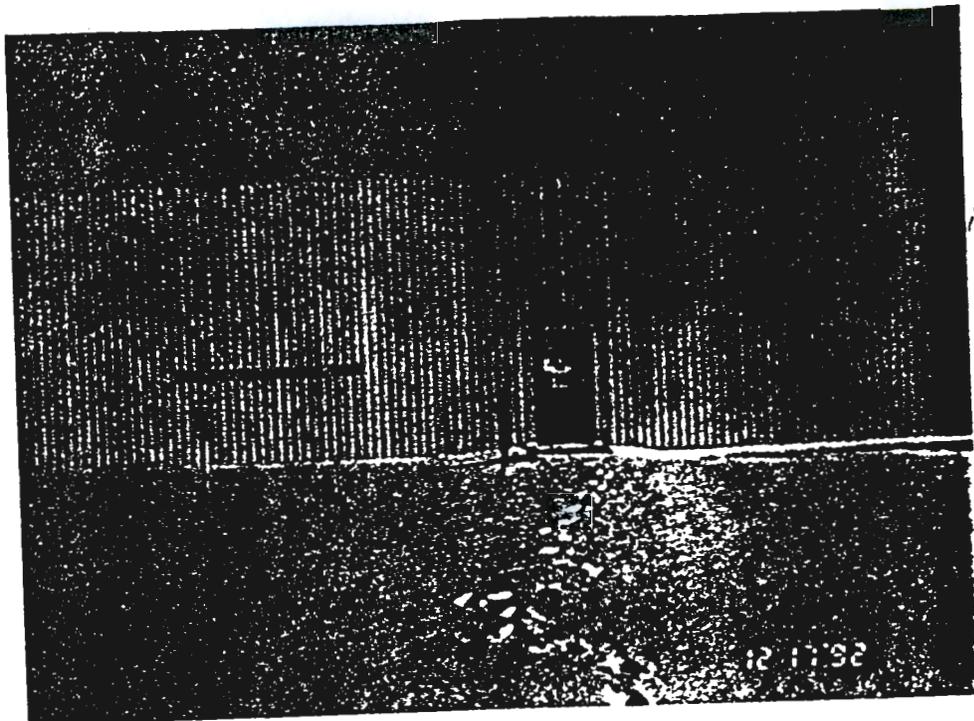
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|----|-----|----------------------|---|
| 11 | SVM | 12/17/92 1255 HRS | 1B FLAMMABLE CELL FACING SOUTH |
| 12 | SVM | 12/17/92 1300 HRS | 1A FLAMMABLE CELL FACING NORTH (TAKEN THROUGH DOOR FROM 1B CELL) |

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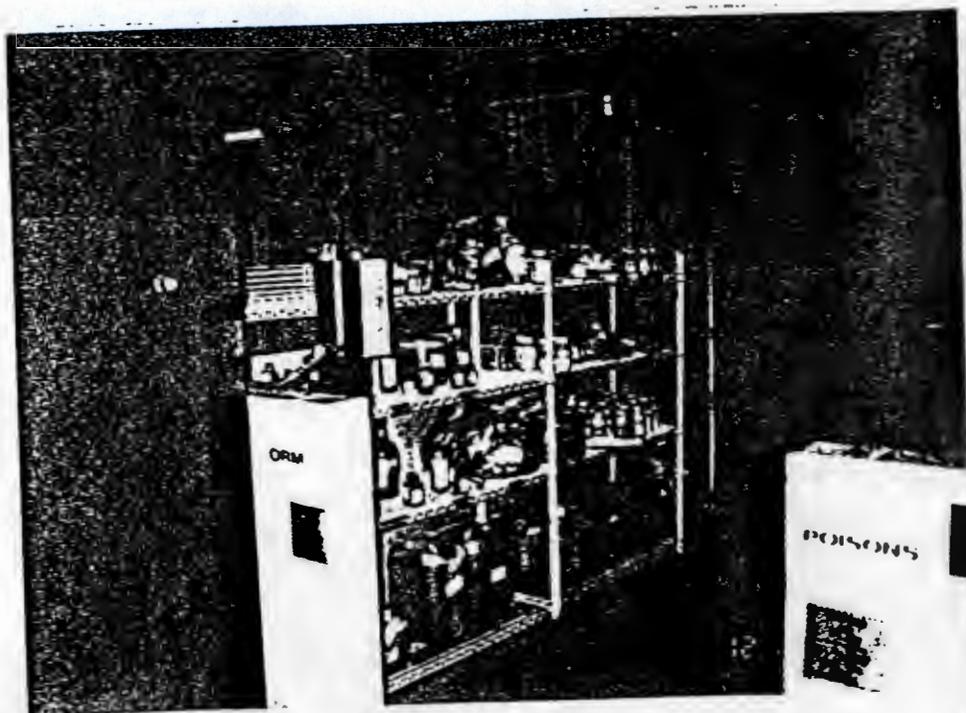
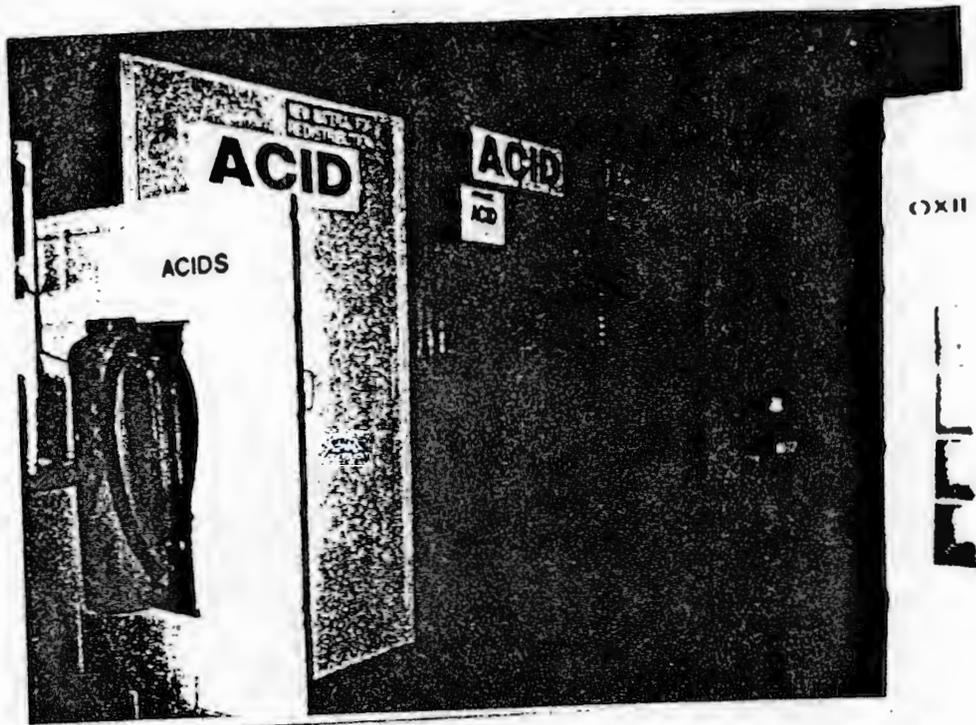
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|----|-----|----------------------|-------------------------------------|
| 15 | SVM | 12/17/92 1304 HRS | OUTSIDE BUILDING 616 FACING SE |
| 16 | SVM | 12/18/92 1119 HRS | INSIDE BUILDING 305B CELLS 1C,1D,1E |

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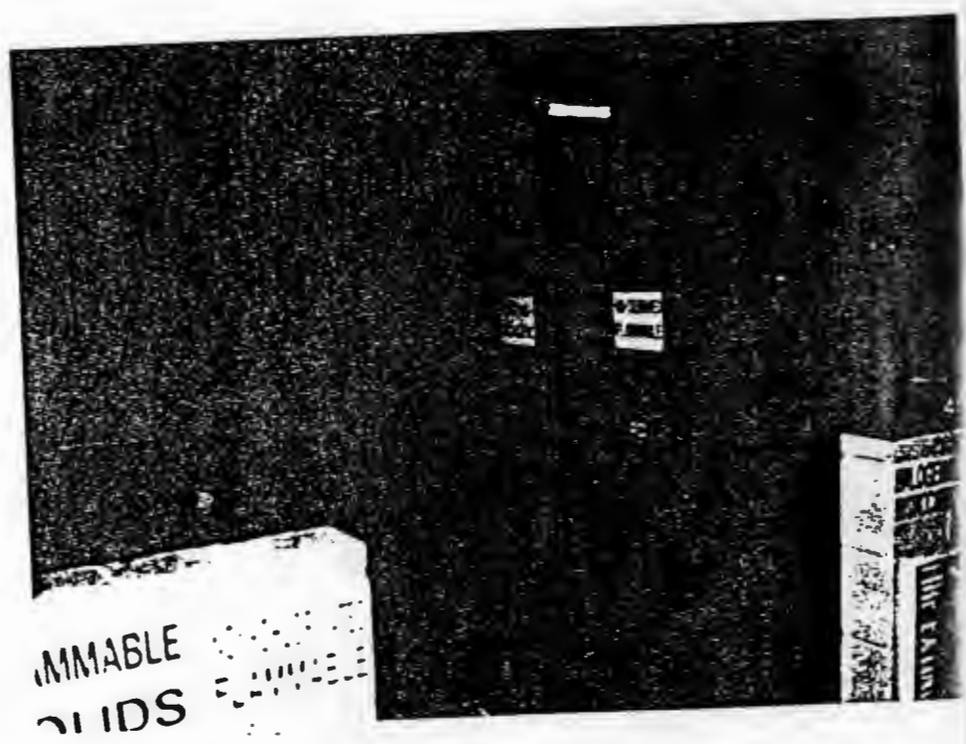
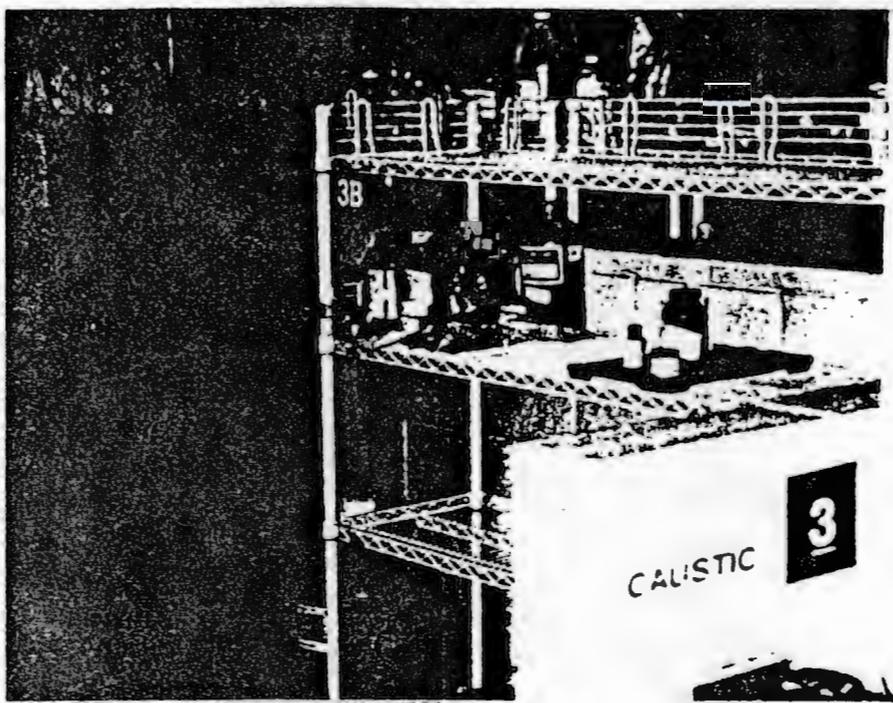
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| 19 | SVM | 12/18/92 1120 HRS | INSIDE BUILDING 305B CELLS 2A,2B |
| 20 | SVM | 12/18/92 1125 HRS | INSIDE BUILDING 305B CELLS 3D,3E |

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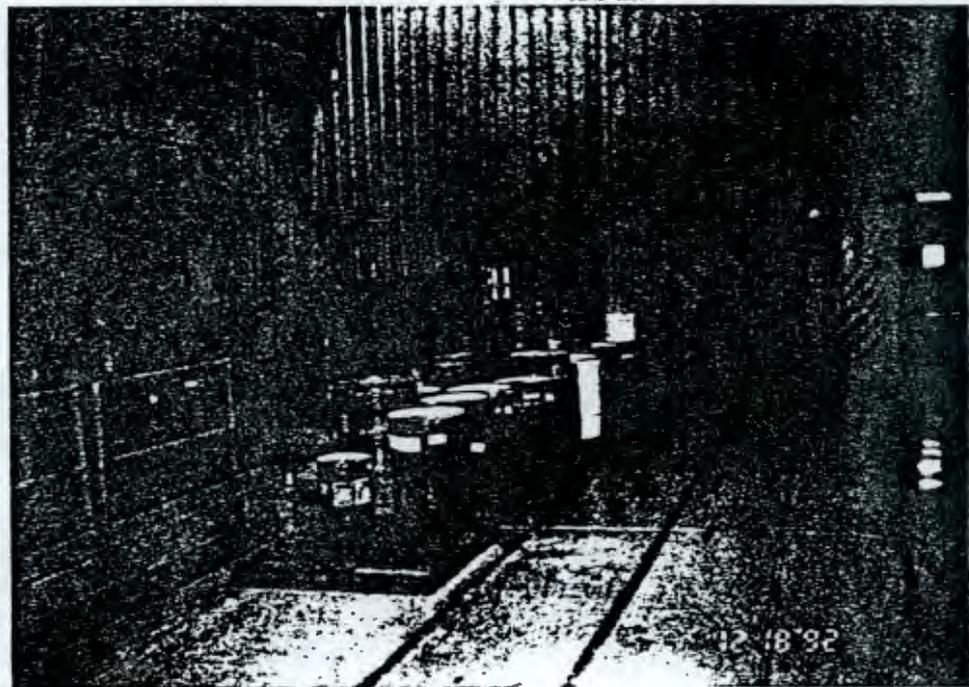
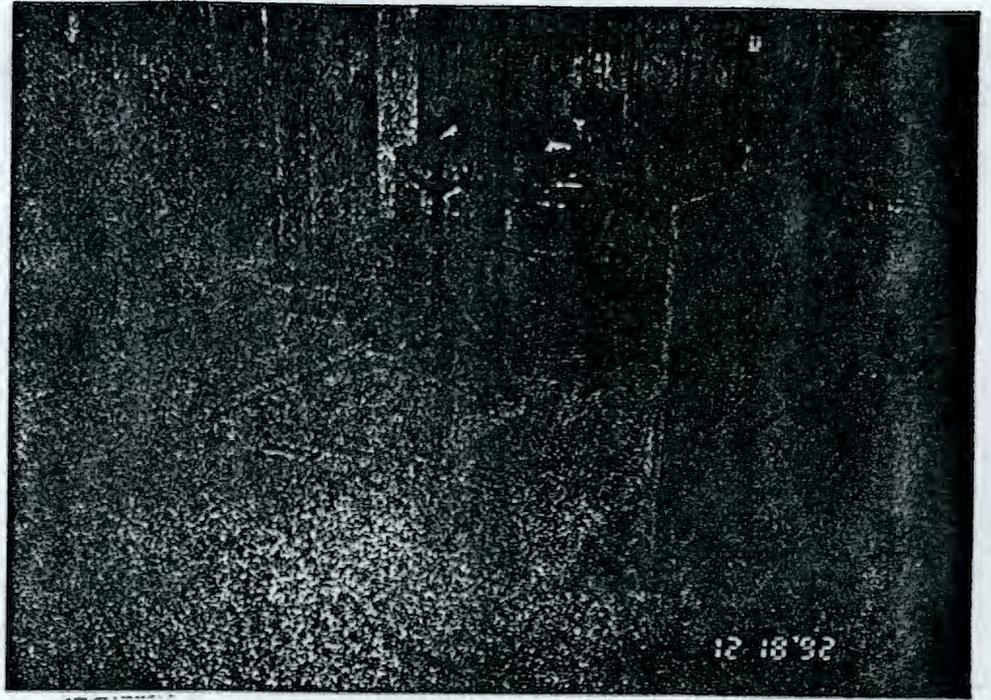
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|----|-----|-----------------------|--|
| 23 | SVM | 12/18/92 1130 HRS | INSIDE BUILDING 305B CELLS 4E, 4F, 4G, 4H |
| 24 | SVM | 12/18/921 1140 HRS | INSIDE BUILDING 305B CELL 13 |

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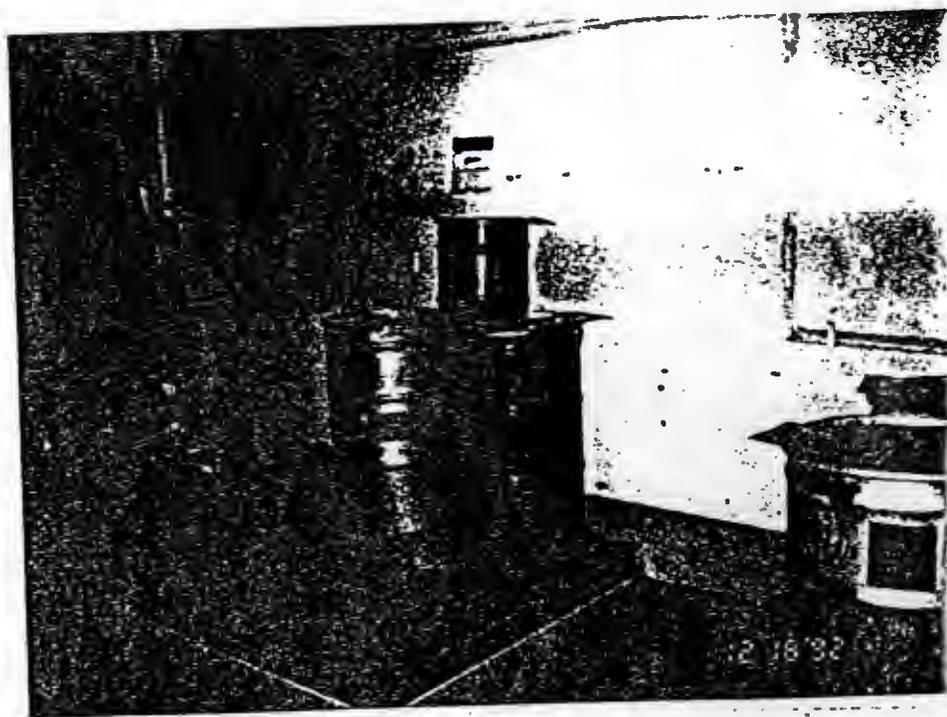
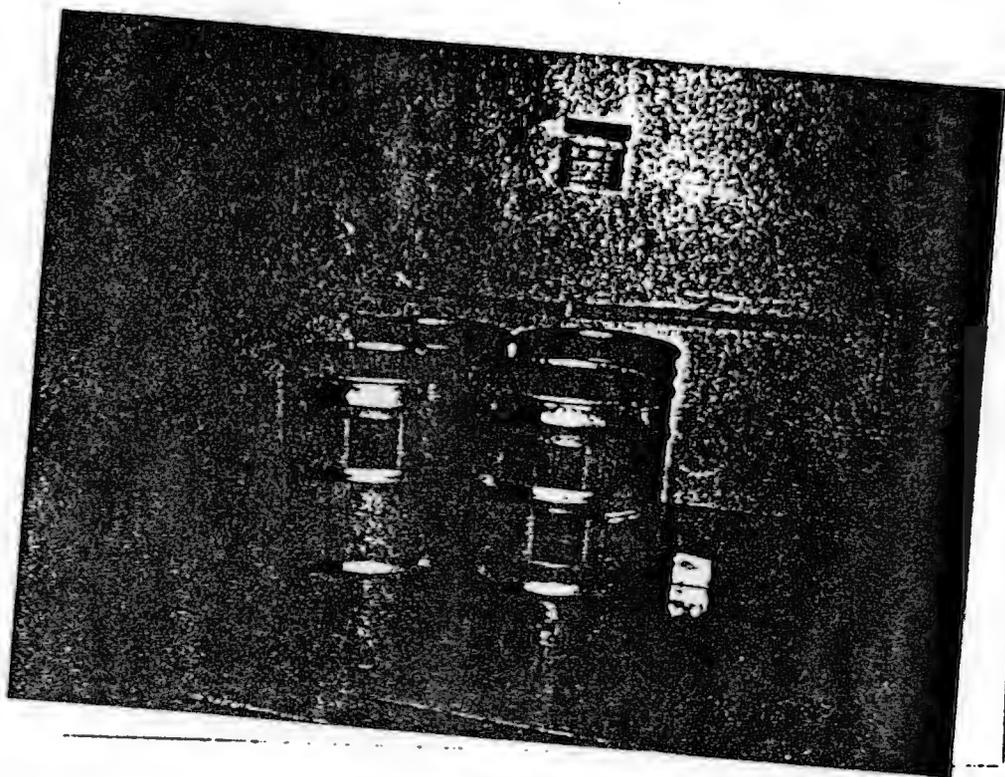
| | | | |
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| 27 | SVM | 12/18/92 1145 HRS | INSIDE BUILDING 305B "HIGHBAY" FACING CELL 5 (SOUTHWEST) |
| 28 | SVM | 12/18/92 1145 HRS | INSIDE BUILDING 305B CELL 12 |

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| | | | |
|----|-----|----------------------|-----------------------------|
| 31 | SVM | 12/18/92 1202 HRS | INSIDE BUILDING 305B CELL 7 |
| 32 | SVM | 12/18/92 1202 HRS | INSIDE BUILDING 305B CELL 7 |

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NUCLEAR AND MIXED WASTE MANAGEMENT PROGRAM
HANFORD PROJECT

DANGEROUS WASTE PERMITTING VISIT

ATTACHMENT C

9413137.1676

CHEMICAL DISPOSAL/RECYCLE REQUEST (CDRR) INSTRUCTIONS

General Instructions:

- Fill out **ALL** blanks correctly and completely.
- Type or print neatly. Forms must be typed or completed in blue or black ink.
- A work package number needs to be included for all 1831 (private) waste and as requested for other special cases (e.g., compressed gas cylinders, lecture bottles, etc.).
- Do not write in shaded areas, these are for Waste Management use only.
- Do not fill in an accumulation date if the waste is in a satellite accumulation area.
- Do not include both satellite accumulation wastes and <90 day wastes on the same CDRR form. Use separate forms.
- Do not include both 1830 and 1831 wastes on the same CDRR form.
- Do not include both nonradioactive chemical wastes and radioactive mixed waste on the same CDRR form.
- Do not include both 300 and 3000 area wastes on the same CDRR form.
- For any materials analyzed, please attach a copy of the analytical report.
- Please feel free to use several lines per item, as necessary, to include any and all important information on the material.
- More than one waste container may be entered on the same line ONLY if they contain identical waste compositions.

Specific CDRR Instructions:

- (a) Metal = tin, steel, aluminum, etc.; Poly = plastic, teflon, carboy, etc.; Fiber = paper, cloth, cardboard; Drum = any DOT approved metal drum; Glass = glass.
- (b) Provide a complete description of the material for disposal. For corrosive material include the pH, for flammable materials include the flashpoint (FP). For trade name items, attach a material safety data sheet (MSDS). For items analyzed, attach a copy of the analysis. Also include any additional information on material or process if any (e.g., CAS number, RTEC number).
- (c) Provide all known chemical components; use proper accepted names (e.g., ethyl alcohol is acceptable; abbreviations or formulas are not).
- (d) Enter weight percent for all known chemical components; this must add up to 100% for each item, unless the information is proprietary (as indicated on an attached MSDS). Trace amounts of metals, cyanides, sulfides, PCBs, phenolics, and other highly toxic materials must be specified.
- (e) Please indicate physical state of material: **S** = solid, **L** = liquid, **M** = gas, **G** = sludge.
- (f) Please enter container/material status from codes shown below (state all that apply):

| | | | |
|---------------------|--------------------|---|--------------------|
| F = full | TR = triple rinsed | O = old | S = spill material |
| PF = partially full | | N = new (unused material) | |
| MT = empty | | R = recyclable condition (unopened, or opened but in excellent condition) | |

Requirements for Material Pickup by Waste Management:

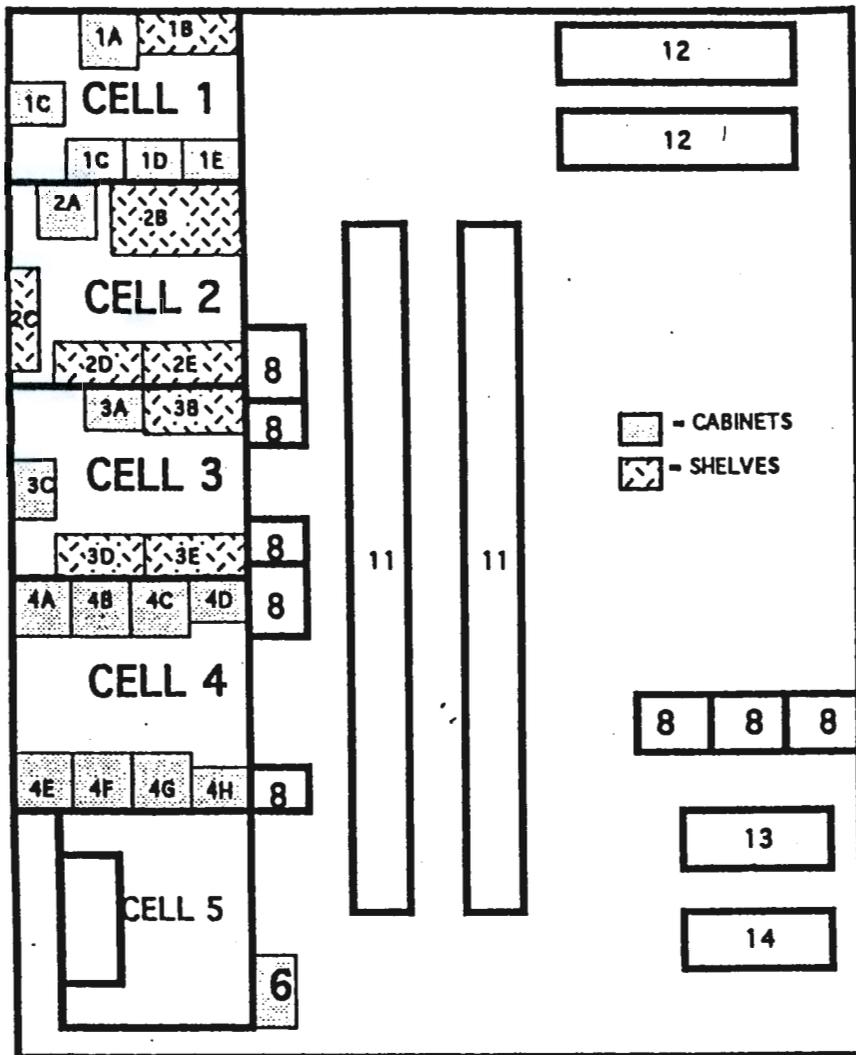
In order to facilitate material pickup by Waste Management, please do the following:

- Complete **ALL** required information on the CDRR form.
- Send in originals only. No copies of requests will be accepted.
- Ensure that all materials are in screw-cap glass, metal, or plastic containers that are compatible with the waste (sealed containers which the material originally came in are acceptable, also, e.g., glass ampules or metal paint cans). Ground glass, rubber stoppers, or taped seals will not be accepted.
- Have a Chemical Waste Certification form filled out and signed by a PNL Radiation Protection Technologist showing that the material has been surveyed and released (1 or 2 days prior to scheduled pickup).
- Each individual container must have marking or labeling on them that clearly identify 100% of their contents and their chemical hazards (if container is too small to label with all constituents please attach tag or other listing).

*If you have questions, please refer to PNL-MA-8, "Waste Management and Environmental Compliance," for hazardous waste issues and PNL-MA-43, "Health and Safety Management," for chemical hazard labeling requirements.

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305-B STORAGE LOCATIONS



1A LIQUID OXIDIZER CABINET (ALSO ORG. PEROX.)
 1B SOLID OXIDIZER/SOLID CORROSIVE SHELF
 1C INORGANIC ACID CABINET
 1D ORGANIC ACID CABINET
 1E NEW ACIDS FOR REDISTRIBUTION

2A POISON CABINET
 2B PCB's
 2C FOR REDISTRIBUTION
 2D MISC. ORM
 2E ORM-E SHELF (METALS)

3A CAUSTICS CABINET
 3B WSDW SHELF
 3C FOR REDISTRIBUTION
 3D WSDW SHELF
 3E NON-REG SHELF

4A NON FLAMMABLE HALOGENATED HYDROCARBON CABINET
 4B COMBUSTIBLE LIQUIDS
 4C FLAMMABLE LIQUIDS CABINET
 4D FLAMMABLE LIQUIDS CABINET TO BULK
 4E FLAMMABLE COMPRESSED
 4F FLAMMABLE SOLIDS CABINET
 4G ORGANIC LIQUIDS FOR REDISTRIBUTION

4H COMPRESSED GAS CYLINDERS
 5 FLAMMABLE LIQUID BULKING MODULE

6 ASBESTOS WASTE STORAGE CABINET

7A RMW CABINET (LOCATED IN BASEMENT)

8 FLAMMABLE DRUM STORAGE CABINETS

9 FLAMMABLE LIQUID RMW (UPSTAIRS)

10 OUTDOOR NON-REGULATED DRUM STORAGE

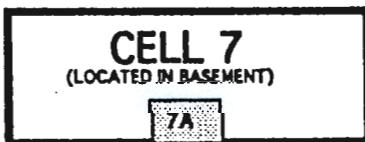
(EMPTY AND FULL)

11 WSDS/ORM/NON REG DRUMS

12 OXIDIZER DRUMS

13 BASE DRUMS

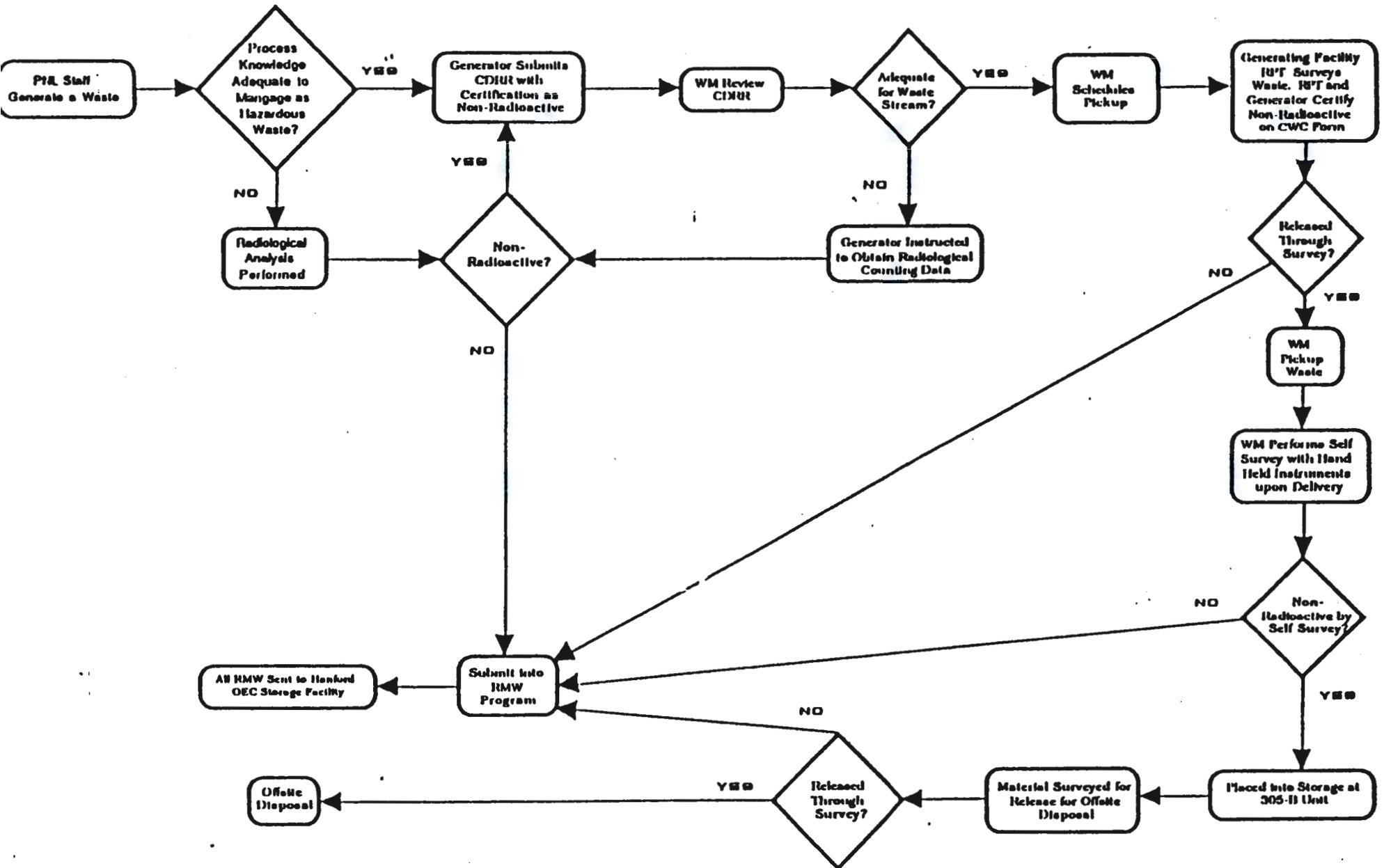
14 ACID DRUMS



HAZARD CLASS HAZARD CODE

| | |
|------------------------------|----|
| Radioactive Material | 1 |
| Poison A | 2 |
| Flammable Gas | 3 |
| Non-Flammable Gas | 4 |
| Flammable Liquid | 5 |
| Oxidizer | 6 |
| Flammable Solid | 7 |
| Corrosive Liquid | 8 |
| Poison B | 9 |
| Corrosive Solid | 10 |
| Irritating Materials | 11 |
| Combustible Liquid >110 Gal. | 12 |
| ORM-B | 13 |
| ORM-A | 14 |
| Combustible Liquid <110 Gal. | 15 |
| ORM-E | 16 |
| WA, St. Dangerous Waste | 17 |
| Non-Regulated | 18 |
| Organic Peroxide | 19 |
| ORM-D | 20 |
| ORM-C | 21 |
| PCB-ORM-E | 16 |
| ASBESTOS-ORM-C | 21 |

PNL Non-Radioactive Hazardous Waste Flow Diagram



6291 291E116

CWC FORM

Part I

DATE: _____

CDRR#: _____

I _____ certify that to the best of my knowledge the hazardous waste described on
(Generator, print name)
the above Chemical Disposal Recycle Request (CDRR) form contains no radioactive waste.

This statement certifies that:

1. The waste material has no potential for internal contamination from unencapsulated or unconfined radioactive material. (An example of this case would be non-radioactive material in a radiation area kept segregated and/or sealed from radioactive material in the same area). Absence of external contamination must also be verified by external survey.
2. The waste material was not exposed to beams (eg. neutron beams) capable of causing activation of the waste material.

Signed: _____
(Generator signature)

Part II

External Survey Performed By: _____

Date _____

Survey # _____

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