



University of Massachusetts
Amherst

Physical Plant Division
policy and procedures manual

PP.12.B.005.B

February 15, 2008

From: Pat Daly, Director

Subject: Hazardous Materials Review and Removal Tracking

Purpose: To establish a procedure to identify, remove, record, and track hazardous materials prior to Physical Plant personnel or other Umass agencies, contractors, and sub-contractors acting on behalf of the University, starting any repair, renovation, demolition, construction or alteration work. Hazardous material can include asbestos, lead, mercury and/or other material.

Discussion: It is imperative that all Local, State, and Federal rules and regulations regarding the management, remediation, and disposal of hazardous materials be followed. To this end, all University of Massachusetts/Amherst personnel, and agencies working on their behalf, must take every precaution when disturbing any surface material(s) to avoid possible exposure to a hazardous materials. **Therefore, if the presence of a hazardous material is unknown, it shall be assumed that working in the area will create exposure to a hazardous material.** This Policy/Procedure meant to eliminate that risk. Documentation of any and all asbestos and other hazardous materials is also essential. Therefore, Physical Plant and Environmental Health & Safety desire to capture all pertinent information regarding asbestos and other hazardous materials present within campus buildings. The process defined herein provides for an effective method to capture and record all information gathered during the review and abatement process. This Policy/Procedure outlines the steps that shall be taken to prevent unauthorized disruption of any hazardous material and to create a database to track the location of the hazardous materials and the remediation process.

Prior to starting any Planned Work Order, the scope of work, plans, and/or specifications shall be reviewed by the Physical Plant Environmental Health and Safety (PP EHS) Officer. This review shall be for the purpose of determining the possibility of the defined scope of work disturbing any surface(s) that may contain hazardous materials.

All reviews shall start as a Work Request in the Physical Plant work management system (EMPAC). If the presence of a hazardous material is unknown, it shall be assumed that working in the area will create an exposure. If there is any chance that the work will disturb any hazardous material, the Work Request shall follow the approval process described herein. Priorities for EH&S Work Requests shall be determined as follows:

- a) all requests for Trust funded entities and Facilities & Campus Planning (FCP) that require hazardous material testing shall be reviewed and sent to EH&S on a daily basis. EH&S will use available resources to address these Work Requests;
- b) Requests for Physical Plant funded/related work that require hazardous material testing will be placed in priority order at a weekly meeting between the Work Management Group, EH&S, Customer Service Representatives, and other concerned individuals. Priority of Physical Plant work shall be determined by the Physical Plant Director, the Assistant Director for Building Maintenance, the Head of Work Management, the Scheduler, and the Chief Planner & Estimator. All requests for priority work shall be submitted for consideration at this meeting. This

"committee" will strive to achieve a "first in, first out" priority but shall consider other efficiencies such as 1) criticality of the Building/Room/Area in question to the mission of the Department requesting the work; 2) established deadlines for the completion of the entire scope of work; 3) other similarly requested work from the requesting Department (one Department should not monopolize the priority list); and 4) other requests within the same location. EH&S will use available personnel to address these Work Requests.

No work in the area shall be started until the Work Request is approved to a CAR –Hazardous Assessment Negative, or the HWC – Hazardous Worksite Cleared for Entry.

In all cases complete documentation of any and all actions taken shall be provided to the PP Business Management Department for updating of the Asset Nameplate page in EMPAC.

Per PP.11.E.002B, Planned Work Documentation, including but not limited to copies of hazardous material identification records and any signed Asbestos Abatement Clearance memo shall be maintained with the Planned Work file.

Each Department involved with this procedure shall designate back-up personnel to perform approvals in case a key Approver is absent. The EMPAC System Administrator or the Head of Work Management may be contacted to progress Work Requests if no authorized Approver is available. Complete documentation is required for them to perform this function.

Definitions:

Hazardous Material - generally defined as any substance that could adversely affect the safety of the public, handlers or carriers during transportation. Hazardous material, as defined by the DOT, is any substance that appears in the Title 49 CFR Hazardous Materials Table.

PP EHS Officer – the Physical Plant Environmental Health & Safety Officer

EMPAC – Enterprise Maintenance Planning and Control – the Physical Plant's Asset/Work Management system

Planned Work – For purposes of this discussion, all Work Orders that are classified as Minor or Specific Action Codes. All such work shall be screened for hazardous material as described herein.

Unplanned Work – For purposes of this discussion, Work Orders that are classified as Service or Emergency Action Codes. Service Call work that involves no obvious disruption of hazardous material ("Too Hot/Too Cold", Recoring of locks, clogged drain, signage requests, etc. for example) shall have a technician dispatched. If hazardous material is encountered, technician notifies Service Desk to enter work request per this procedure.

FCP – Facilities & Campus Planning Division

Trust funded entities – Campus Departments such as Housing and Auxiliary Services who generate revenue to cover expenses. These departments may utilize Physical Plant contracts to accomplish work without Physical Plant labor or material or involvement.

EMPAC Work Request Approval Codes (in chronological order):

EH – All Hazards Review, possible presence of hazardous material. Needs PP EHS Officer review

UE – Converted to F&CP Project – used to generate F&CP Project number

OD – Outside Design – for FCP project with hazardous material remediation performed entirely by an outside contractor

ACM – Hazard Testing Required. PP EHS Officer cannot definitively rule out the presence of hazardous material. Review not prioritized as yet.

EHS – Work Request Prioritized for EHS Testing Required. Work Request prioritized and sent to EHS for Hazardous Material testing.

TCN – Testing Contractor Notified to perform hazardous assessment

CPM – Testing Contractor and Project Manager/Site Supervisor Meet to define scope of work.

TKN – Samples Taken - Hazardous Assessment started

RR – Hazardous Assessment results received by EHS

AAP – Hazardous Assessment Positive. Hazardous Material Review positive. Hazardous Material identified as present.

- H – On Hold, Not Estimated. Requestor will be contacted – do they wish to proceed with current scope of work?
- CAR –Hazardous Assessment Negative. Hazardous Material Review negative. No hazardous material present.
- CE –Hazardous Material Estimating. Work Request in Estimator’s backlog (unprioritized).
- AAE – Actuated Asbestos [Hazardous Material] Estimate. Work Request prioritized and Asbestos Estimator is developing estimate.
- AED –Hazardous Material Estimating Done, Awaiting Funding. Estimate sent to customer/requestor for funding.
- AWF –Hazardous Material Work Funded. Customer/Requestor has approved funding and provided Speedcode.
- DNS – DEP Notification Sent. EHS has submitted permit request to the Department of Environmental Protection agency.
- DM – Put on-Deferred Maintenance. Physical Plant will not perform remediation at this time.
- X – Cancelled – work will not proceed.
- UM –Hazardous Material Work Completed. Hazardous materials removed per scope. Ready for EH&S clearance.
- HWC – Hazardous Worksite Cleared for Entry. Area has been cleared of identified hazardous materials by EH&S.
- A- Approved by – final status, all necessary steps taken; Work Order can be generated.

Action: All work shall be screened for possible hazardous material-related issues as follows:

1. Calls to the Service Desk and internal requests:

A. Emergencies: Physical Plant recognizes the need to address emergency work in a timely manner. To this end, the Service Desk shall issue a work order to alleviate the emergency situation. Mechanics/technicians will respond to an emergency and shall take appropriate action to control, isolate, and stabilize the situation without disruption to hazardous material. Once the emergency situation is stabilized, all related repair work shall be considered Planned Work and shall follow the procedure for Routine Maintenance (below), thus avoiding any hazardous material release.

It should be noted that all Physical Plant personnel undergo basic hazardous material training on an annual basis. It is incumbent upon each employee to realize the need to adhere to all related policies and procedures. Given the size and age of campus facilities, it is impossible to identify all hazardous material on campus. Therefore, if the presence of a hazardous material is unknown, the employee shall assume that working in the area will create exposure to a hazardous material.

If emergency action is not possible without disturbing any hazardous material, the technician shall contact the Service Desk, who will then notify the Environmental Services Unit (ESU). ESU shall initiate the steps necessary to identify any hazardous material and remediate and dispose of as required. ESU shall contact EH&S and request clearance action. Follow-up action shall include notification to the Work Management Group for data collection and recording in the Room-EHS Asset nameplate page in EMPAC.

B. Routine Maintenance: Other than emergency work and work that is obviously not going to disturb any hazardous material, the Originator shall enter all requests for work as EMPAC Work Requests. Work Requests shall follow the standard operation procedure (PP.17.B.002.A). **It should be noted that this process requires a definitive scope of work in order for EH&S to make a thorough determination as to the presence of any hazardous material in the work site and to ensure accurate data is recorded on the Room-EHS Asset nameplate page in EMPAC.**

Additionally, Work Requests for All Trust-funded entity (i.e. Housing, Auxiliary Services, etc) and FCP work shall have a “1-Other” Work Request Type code assigned to them. Work Requests for Physical Plant work shall have a “0-Physical Plant Maintenance” Work Request Type assigned to them. This action assists in sorting the two (2) different groups of requests for action below.

1. After all information is in place, the Work Request shall be progressed to the EH - All Hazards Review approval status.
2. All work requests in the EH- All Hazards Review status shall be reviewed on a daily basis by the Physical Plant EHS Officer.
 - a. As part of this review, the PP EHS Officer shall review the Asset Nameplate Page to determine if hazardous material reviews have previously been performed and documented.

- b. work requests that have no apparent impact on potential hazardous material shall be progressed to the CAR – Hazard Assessment Negative Status by the EHS Officer.
 - c. If there is any doubt as to the presence of hazardous material, and the EHS Officer shall progress the Work Request to the ACM – Hazard Testing Required status.
- 3. The PP EHS Officer shall submit Trust-funded entity and FCP work requests in the ACM – Hazard Testing Required status to EH&S sheet for immediate action by EH&S. Upon this action, the EHS Officer shall progress these work requests to EHS – sent to EHS for testing status on a daily basis.
- 4. All Physical Plant work requests in the ACM – Hazard Testing Required status shall be reviewed weekly by the Work Management Group, EH&S, Customer Service Representatives, Building Maintenance personnel and other concerned individuals for prioritization.
- 5. The PP EHS Officer shall submit the prioritized Physical Plant work requests in the ACM – Hazard Testing Required status to EH&S for action. The PP EHS Officer shall progress these work requests to EHS – sent to EHS for testing status.
- 6. EH&S, or their designee, shall address all work requests in EHS – sent to EHS for testing status. They, or their designee, shall visit the worksite to determine if a hazardous material is present. At this point, the Work Requests shall be progressed to TCN- Testing Contractor Notified status.
- 7. The Testing entity shall confirm the scope of work with the Project Manager/Site Supervisor. The EHS representative shall progress the Work Request to CPM – Meeting with Testing Contractor status.
- 8. Upon the start of Hazardous Material testing, EHS shall progress the Work Request to TKN – Samples Taken status - Hazardous Assessment started.
- 9. All test results shall be sent to EHS. Upon receipt of the results, EHS shall progress the Work Request to RR- Hazardous Assessment Results sent status. EHS shall return the Hazardous Material Checklist (Enclosure 1) or the Chain of Custody Record (Enclosure #2) to the PP EHS Officer.
 - a. The PP EHS Officer shall forward all Hazardous Material testing results to the Physical Plant Business Management Department. The Business Management Group is responsible for inputting all hazardous material data onto the Room-EHS Asset Nameplate page.
- 10. If no hazardous material is detected in the area defined by the scope of work, the EHS Officer shall progress the Work Request to the CAR – Hazard Assessment Negative Status and the work process may continue.
- 11. If hazardous material is found to be present, the PP EHS Officer shall progress the Work Request to the AAP – Hazard Assessment Positive status. All Work Requests in this status will be reviewed at the weekly meeting (#1.B.4 above) to determine if the work should proceed.
 - a. If hazardous material is found outside the area defined in the scope of work, the presence shall be noted on the review form and the information placed in the Description of Work on the Work Request. In this way, the technician(s) performing any work will be aware of any possible hazardous material and shall not perform any work in the area tested.
 - b. Upon contact with the Requestor regarding the Hazardous Material review results, the Work Management Group will place the work request in the H- On Hold, Not Estimated status.
 - c. If the work is not going to be addressed at this time, it shall be placed in DM – Deferred Maintenance status.
 - d. If the scope of work involves only asbestos or other hazardous material removal and will be addressed at this point in time, the Work Request shall be progressed to the CE – Hazardous Mat. Estimating status by the Work Management Group. In this way, estimating can take place for funding and scheduling purposes.
 - 1. Priorities for developing estimates for Physical Plant requested Work Requests in the CE – Hazardous Mat. Estimating status will be established during the same weekly meeting to determine Work Request priorities, using the same criteria listed in the Discussion Section, paragraph 3 b) above. Prioritized CE status requests shall be progressed to AAE – Actuated Hazardous Material Estimating.
- 12. Hazardous Material Checklists and/or Chain of Custody Records shall be retained by the PP EHS Officer. The Work Supervisor may request copies of these documents for placement in the Planned Work File (PP.11.E.002B). Primary documentation shall reside with the PP EHS Officer. The Audit Trail of the EMPAC work request shall provide further

documentation of the review process. It should be noted that the PP EHS Officer is clearing the Work Request for the specific scope of work listed on the work request and any other work shall undergo further testing.

13. If remediation of any hazardous material is only a portion of the job scope, the Work Request shall be placed in the Actuated Estimating status for the primary Estimator (Architectural, Mechanical, etc.). The estimate to remediate the hazardous material becomes a line item on the entire job estimate.
14. EHS shall provide the estimated costs associated with testing and/or monitoring to the requestor.
15. Upon completion of the estimate, the ESU supervisor/Estimator/CSR shall send the estimate to the requestor and progress the work request to AED – Hazardous Mat. Est. Done, Waiting for Funding status.
16. When funding authorization is received, the work request shall be progressed to AWF – Hazardous Mat. Work Funded status by the person receiving funding authorization, generally the ESU Supervisor. The ESU Supervisor shall notify EHS and Work Management when funding is authorized.
 - a. If the requestor does not fund the work, the Work Request shall be placed in DM-Deferred Maintenance status by the PP contact person.
17. If the hazardous material is identified as asbestos, EHS shall submit notification to the Department of Environmental Protection (DEP) based on the desired date for the start of the hazardous material remediation work. EHS shall be responsible for hiring an Industrial Hygienist to monitor and/or clear the worksite. Upon submittal, EHS shall progress the work request to DNS – DEP Notification Sent status.
21. At this point, the Work Management Group shall generate a work order for the PP ESU to remove the hazardous materials. In order to maintain the work request's audit trail, the work request needs to be progressed to the A –Approved by.. status. The Work Request can then be used to the "copy" function to generate the work order.
 - a. ESU shall manage all campus-funded hazardous material remediation work, either by performing the work or overseeing an authorized contractor.
 - b. Management of remediation work funded through non-campus funds (DCAM, UMBA, etc.) may be assigned to properly licensed and trained contractor(s) as determined by the Department responsible for project management. See section D. below for further details of process related to FCP work.
 - c. Once the ESU Work Order is created, the Work Management Group shall:
 - 1) regress the original Work Request back to DNS – DEP Notification Sent status;
 - 2) If the abatement warrants a 10-day DEP notification, the Work Management Group shall enter a Service Interruption Notice using the information (note: abatement start/end dates) supplied by the ESU Supervisor / Manager.
22. Upon completion of the remediation work, the ESU Supervisor shall check the work order to ensure the exact remediation action is completed as stated. Any additional comments shall be placed on the Notes Page of the work order. The ESU Supervisor shall then close the work order and progress the original work request to UM – Hazardous Mat. Work Completed status and notify EH&S for clearance.
 - a) The ESU Supervisor shall forward any pertinent information regarding hazardous materials to the Business Management Group and they shall update the Room-EHS Asset Nameplate page in EMPAC. Notification shall be in the form of email or by writing Notes on the hardcopy work order and submitting to the Business Management Group.
23. Once EH&S, or their designee, has determined the site is free of hazardous material a clearance form is issued and the work request progressed to the HWC-Hazardous Worksite Cleared status. This notification shall be sent to the ESU Supervisor. At this point, other related work can proceed, using the work request to generate the work order(s).
24. In order to recoup any contractor costs for testing and monitoring incurred by EHS, EHS shall apply the associated costs to the appropriate Standing Work Order via Miscellaneous Cost Entry. (Note: These Standing Work Order shall be charged to "PP Overhead", thus not included in any cost per square foot analysis)
 - a. The Physical Plant Billing System will note these charges, add the appropriate overhead charges, and initiate the transfer of funds from the Customer to EHS.
25. The Physical Plant Financial Management Department will identify charges related to Physical Plant funded work and apply the charges to the appropriate billable work order via

Miscellaneous Cost Entry. In this way Physical Plant is reimbursed for EHS monitoring and testing expenses.

C. Electronically submitted Requests/Customer Requested Work: All Customer requested work should enter Physical Plant as a Work Request. The CSR shall visit the Requestor to completely identify the scope of work and to review the work site. If there is any chance that the work will disturb any hazardous material, the associated Work Request shall be placed in the EH- All Hazards Review status. The process for Routine Maintenance above shall be enacted.

D. Facilities & Campus Planning Requests:

1. All FCP projects shall be reviewed for the possibility of hazardous materials. In order to facilitate immediate action described in Section 1.B.3 above, FCP work requests shall designate the Work Request Type as "1 – Other". F&CP shall progress the original Work Request to E-Entered for Approval status. This action allows them to generate the required "Project Number" for their tracking system.
2. In order to proceed with scope development, FCP shall progress the work request to UE – Converted to F&CP Project.
3. Upon determination that FCP will proceed with the project, the Work Request shall be progressed to the EH- All Hazards Review status. If a site review is deemed necessary, the Requestor should so state in the Problem Description field of the Work Request. The Work Request shall be progressed to ACM – Hazard Testing Required status by the PP EHS Officer. Hazardous Material remediation work performed for FCP by the Physical Plant ESU group shall enter the process described in Routine Maintenance above at this point.
 - a. Should the FCP project be funded through the Department of Capital Asset Management (DCAM), the University of Massachusetts Building Authority (UMBA), or through State funding, the FCP Work Management, or their designee, shall progress the WR to OD - Outside Design status. EHS shall track all Work Requests in this status and contact the Project Manager to coordinate testing activities.
 - b. Should FCP determine that the project will not proceed, FCP shall progress the work request to X – Cancelled By... status. If necessary, they may notify Physical Plant Work Management Group to perform this action.
4. FCP may proceed with areas of the project unaffected by hazardous materials. Other than work related to preparing the area for Hazardous Material remediation (ex. - disconnecting utilities) , no work shall be started in the area suspected of having any hazardous material until they have received clearance from EHS and the Work Request progressed to the CAR - Cleared Hazards Review or HWC-Hazardous Worksite Cleared Status. In no case shall the area identified as having hazardous material present be physically disrupted. If preparation of the work site requires disruption of the hazardous material, said work shall be performed by licensed personnel only.
5. EHS shall copy FCP and the PP EHS Officer with any and all correspondence related to these actions. Site reviews to determine the scope of remediation work shall be scheduled at the discretion of the FCP Project Manager and the appropriate Physical Plant personnel.
6. Any FCP project hazardous material remediation work performed by an outside contractor shall have an licensed Industrial Hygienist (IH) assigned. The IH shall complete the Hazardous Material Checklist (Enclosure 1) or a Chain of Custody Form (Enclosure 2) and forward it to EHS for inclusion in any project documentation. Once the scope of work is completed, the IH shall verify that the worksite is clear of hazardous material. At this point, the Project Manager or the Contractor shall verify that the scope of remediation work is complete. The IH shall then notify EHS, who will progress the work request to UM - Hazardous Material Work Completed status. The IH will then test the air quality at the site and notify EHS of the results in writing. Once the site is cleared, EHS will progress the original work request to the HWC-Hazardous Worksite Cleared status. EHS will provide all hazardous material remediation documentation to FCP Work Management.
7. The PP EHS Officer shall forward copies of all associated correspondence to the Physical Plant Business Management Department for inclusion on the Asset Nameplate page as described in Section 1B, Routine maintenance above.

E. Change in Scope: Should there be any change in scope in any work being performed, the Project Manager/Area Supervisor [person in charge] shall detail the revised scope and shall request the PP EHS Officer review the site as in Routine Maintenance section above. The affected work shall not proceed until EH&S clearance is received.

- F. Unforeseen Hazardous Material:** If work is started in an area believed to be free of a hazardous material, and during the project a hazardous material is discovered, then the job shall be immediately stopped and the Emergency procedures above shall be followed.
- G. Disposal of Debris:** In order to ensure proper disposal, transporters of all demolition debris to University Waste Recovery and Transfer Facility (WRTF) shall provide WRTF personnel with the Work Order Number associated with the work debris.
- H. Process Audits:** On a monthly basis, generally during the weekly review meeting (Section 1.B.3 above), Physical Plant personnel shall review a sampling of the past month's Service Call Work Orders to determine if any hazardous material reviews should have taken place prior to dispatching/assigning personnel. If it is determined that this action should have taken place, the Manager of Work Management shall investigate further. If protocol violations occurred, the work order's Originator will be notified of the appropriate action that should have been taken. Upon notification of the first offense, a detailed review of this document by the work order Originator and their immediate supervisor will occur. Progressive discipline shall follow further violations.

Audits and reviews will be conduct at established weekly meetings between Work Management, EHS, and/or FCP. Training issues should be brought to the attention of the Associate Director of Business Management for action.

I. Signatories:

Pat Daly, Director Physical Plant _____
 James Cahill, Director Facilities & Campus Planning _____
 Donald Robinson, Director Environmental Health & Safety _____

- Enclosures:** 1) Hazardous Material Checklist
 2) Chain of Custody Record example
 3) Process Flow Chart
 4) FCP/Outside Design Flow Chart

Distribution:

Director	All Managers
Assistant/Associate Director	All Supervisors
Executive Assistant	CSRs

Enclosure #1

Building: _____	Additional Location Information: _____	Inspector Name: _____
Room Number: _____	_____	Inspector License #: _____
		Date of Inspection: _____

PCBs
 Lead Paint
 Asbestos

Additional Information

Walls: Interior: <input type="checkbox"/> Exterior: <input type="checkbox"/>	<u>North Wall:</u> Mop Board: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Mastic: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Exposed Pipes: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hidden Pipes: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	<u>South Wall:</u> Mop Board: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Mastic: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Exposed Pipes: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hidden Pipes: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	<u>East Wall:</u> Mop Board: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Mastic: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Exposed Pipes: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hidden Pipes: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	<u>West Wall:</u> Mop Board: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Mastic: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Exposed Pipes: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hidden Pipes: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Ductwork:	Exposed: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hidden: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Floor:	Material: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Mastic: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Underlayment: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Ceiling:	Material: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Adhesive: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Exposed Pipes: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Hidden Pipes: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

Enclosure #1 Continued

		Asbestos	Lead Paint	PCBS		
Windows:	<u>Glazing:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Interior: <input type="checkbox"/>	Caulking:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Exterior: <input type="checkbox"/>						
Doors:	<u>Material:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Interior: <input type="checkbox"/>	Insulation:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Exterior: <input type="checkbox"/>						
Roofing:	<u>Material:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Underlayment:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Under-ground:	Steam Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Duct Banks:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Water Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Enclosure #2 Chain of Custody Record (example)

ProScience Analytical Services, Inc.

PLM Asbestos Chain of Custody Record

LABORATORY/HEADQUARTERS

22 Cummings Park, Woburn, MA 01801
T: 781-696-0212 F: 781-932-4957

LABORATORY SERVICES

850 North Mountain Rd., Newington, CT 06111
T: 860-653-1022 F: 860-653-1080



RUSH

Page of

Turn Around Time Requested

Same day 24 Hour 48 Hour 72 Hour 5 Days

Client: _____
Address: _____
Project Site & Number: _____
Phone / FAX Number: _____
Contact: _____

Requisitioned by/date: _____
Received by/date: _____
Samples received: _____ Analyzed: _____
Fees, Estimated, Verbal/date: _____
Stop on first positive: Yes _____ No _____

For Lab Use - Batch Number

Analyzed by/date: _____

QC by/date: _____

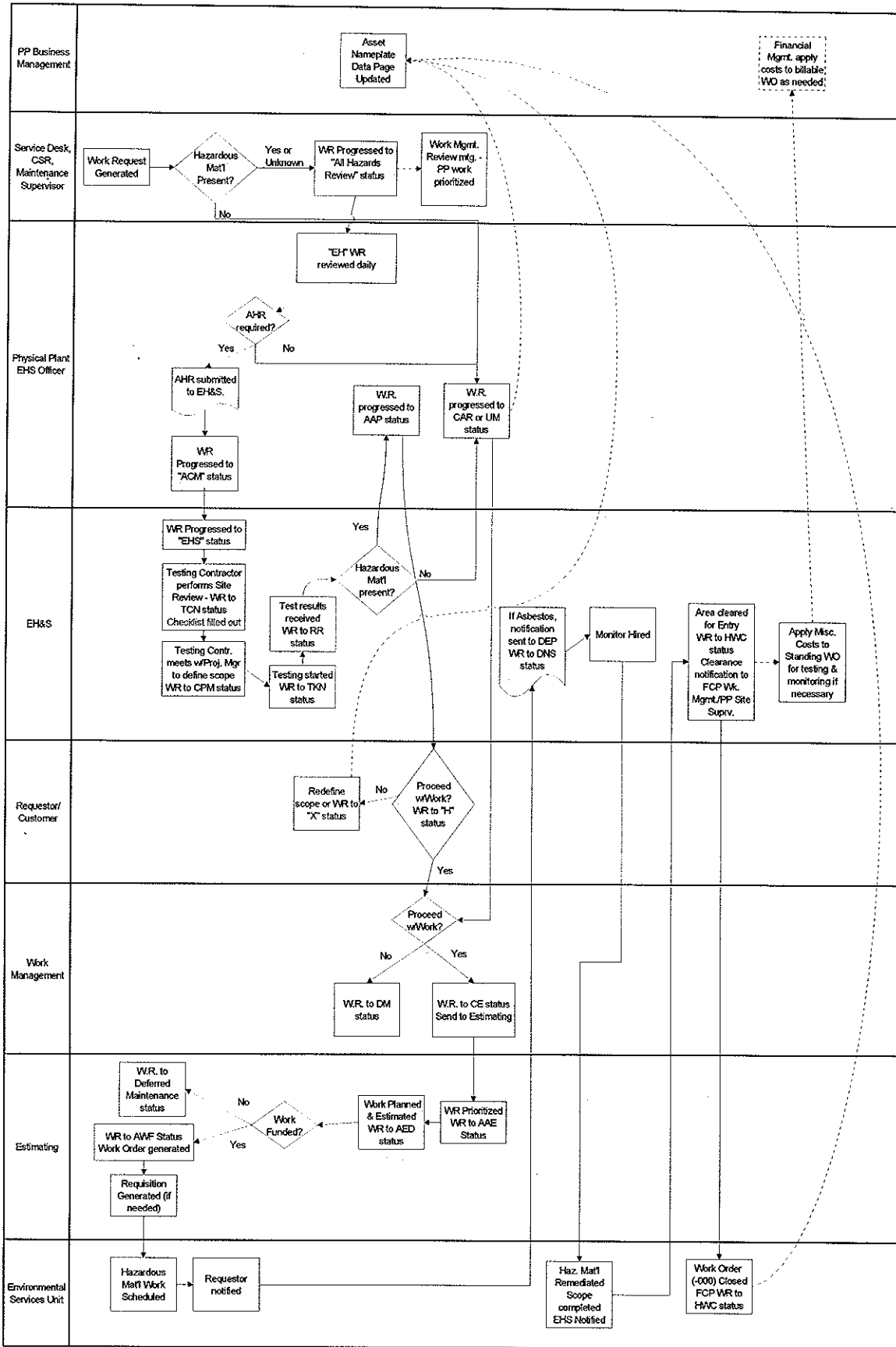
Lab ID	Field ID Sampled date	Description / Location	Stain Scope			Optical Properties				RI		Asbestos Percentage (%)						Non-Asbestos Percentage (%)									
			% Asbestos Other	Transparency	Texture	Fracture	Morphology	Refraction	Signer Abnormal	Birefringence	Polarization	mm	µm	Chrysotile	Amosite	Crocidolite	Tremolite	Anthophyllite	Actinolite	Fiberglass	Mixed Fibers	Cellulose	Fiber	Quartzite	Other	Non-fibrous	

Comments:

For complete information about our services and locations please visit us at www.proscience.net or call the numbers above.

Revised on 7/20/97

ATTACHMENT #3 Physical Plant Flow Chart



**ATTACHMENT #4
FCP/Outside Design Flow Chart**

