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PUBLIC EMPLOYEE OCCUPATIONAL SAFETY & HEALTH INSPECTION REPORT AND ORDERS

Wisconsin Department of Commerce
Safety and Buildings Division
Integrated Services Bureau
P.O. Box 2658
201 W. Washington Ave
Madison, WI 53701

hTo The Attention Of: CHARLES SORENSEN Chancellor	Inspection Date: 6/18/09, 7/7, 8, 9, & 13/09	File Number: E- T0599-138 -10	Number of Violations: 50
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Employers Address:
UW Stout
PO Box 790
Menomonie, WI 54751-0790

<input checked="" type="checkbox"/> Safety Program Evaluation	<input checked="" type="checkbox"/> Work Site Inspection
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Violations Explained To: Charles Sorensen Title: Chancellor	Located At (number and Street address): University of Wisconsin Stout, 915 South Broadway City: Menomonie County: Dunn
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Compliance Date: 12/21/09

The information you provide may be used for other government agency programs [Privacy Law, s. 15.04(1)(m)].

NOTE: All violation orders starting with "1910" are referenced through Comm **32.50(2)** referencing: 29 CFR 1904, 1910 & 1926 (OSHA Codes)

NOTICE: Employer must post a copy of this report at site of violation for minimum of 3 days or until all violations are abated, whichever is longer - Wis. Stats. 101.055(6).

All violations noted must be abated by the above compliance date, with extensions granted only if a good faith effort is established. Extensions are not automatically granted, and must be accompanied by an accepted compliance/abatement plan and approved by the compliance officer.

This DEPARTMENT ORDER is issued as a result of an occupational safety or health investigation into Complaint # 1229255 stating "Employees of UW Stout are being exposed to asbestos." and Complaint #1229295 stating "Price Commons is under going a remodel. The freight elevator was contaminated with asbestos during the abatement process. The elevator is used by myself and other employees before it was locked off. No signs were displayed saying the elevator was contaminated for several days. Employees were on told of there exposure."

In an attempt to reduce the length and repetition of the Condition Found sections supporting material can be found in the following Attachments:

- Events at Price Commons
- Price Commons Elevator Shaft Clearance Report
- Events at Jarvis Hall
- Jarvis Hall Ventilation
- Jarvis Hall Summary clearance report data and WALMS data comparison
- Events at Hovlid Hall
- Events at Sports and Fitness
- Events at Bowman Hall and previous UW Stout Asbestos Exposure Complaints and Report Synopsis
- Competent Person including the Vice Chancellor of Administrative and Student Life Services' directive and relevant sections of:
 - OSHA, DHS, and DNR requirements
 - UW Stout Asbestos Management Policy
 - New UW Stout Reporting protocols
 - UW Stout Hazardous Materials and Asbestos Coordinator Job Description
 - First Asbestos Coordinator credentials
 - Project Liaison Competent Person activities and credentials
 - New Asbestos Coordinator credentials at the time of taking on the tasks required.
- Comparison with other UW policies and procedures for asbestos and DSF abatement projects

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This information was obtained from UW Stout, other UW employees, and DSF employees (identified by job title) during the course of this inspection. Where it was necessary to identify the Department of Commerce actions they are described as taken by the Department of Commerce Representative.

6/18/09 the Project Liaison was notified that, due to their work schedules, employees working in Price Commons and Jarvis Hall during the events described would be interviewed first. These interviews were followed immediately by a meeting with the Physical Plant Director, Physical Plant Assistant Director/Project Liaison with DSF, the Hazardous Materials and Asbestos Coordinator, and the Local 383 President. Statements dated 6/18/09 refer to these interviews.

7/13/09 Closing Conference with the Chancellor of UW Stout reviewing the violations identified at UW Stout and the requirements of Wisconsin Administrative Codes and adopted OSHA standards.

Due to evidence of the lack of implementation by UW Stout of forms and work processes submitted to the Department of Commerce to abate violations regarding asbestos in 2003 and 2006 (see Order #2 and Bowman Hall attachment) the documentation and verification of implementation for items in this report shall be more stringent.

Due to the actions taken by the Vice Chancellor of Administrative and Student Life Services that moved the University of Wisconsin Stout out of compliance and into violation of OSHA standards all corrective actions required shall be conducted or verified by the Chancellor.

In order to have sufficient knowledge to abate or verify abatement of this and other violations the Chancellor shall be required to read and understand each of the standards cited. The Department of Commerce will provide assistance, as needed, to the Chancellor to meet this requirement.

The abatement material submitted shall be sufficient to prevent a recurrence of the violations Wisconsin Administrative Codes, Statutes, and Standards or regulations adopted by the Codes.

- a. The Chancellor shall develop a process to verify effective implementation of abatement material for the previous Reports as well as the abatement material for this Report.
- b. The Chancellor shall develop procedures to correct all employees that do not follow processes, take actions, or properly fill out forms utilized to abate hazards identified in the previous Report and in this Report.
- c. The Chancellor shall develop procedures to correct employees, including administrators, who take actions or issue directives that violate Wisconsin Administrative Codes, Statutes, and Standards or regulations adopted by the Codes.
- d. The Chancellor shall, upon knowledge of the violation, revoke policies, procedures, directives, practices, etc. enacted by his administration that violate Wisconsin Administrative Codes, Statutes, and Standards or regulations adopted by the Codes.
- e. The Chancellor shall provide documentation of the above as part of the abatement material.

The following violations were revealed:

1. Code Section Violated: Comm 32.05(2) PARTICIPATION IN INSPECTIONS. Pursuant to s. 101.055 (5), Stats., a representative of the employer, an employee, or an employee representative shall be provided an opportunity to accompany a department inspector on any inspection made under this chapter. **Statute 101.055(5)(c)** A representative of the employer and a public employee representative shall be permitted to accompany a representative of the department on an inspection made under this subsection to aid in the inspection and to notify the inspector of any possible violation of a safety and health standard or variance or of any situation which poses a recognized hazard likely to cause death or serious physical harm to a public employee. The public employee representative accompanying the representative of the

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department on an inspection shall, with respect to payment received or withheld for time spent accompanying the department representative, receive treatment equal to that afforded to any representative of the employer who is present during an inspection, except that a public employer may choose to allow only one public employee representative at a time to accompany the department representative on an inspection without a reduction in pay. If a representative of the employer does not accompany the representative of the department on an inspection, at least one public employee representative shall be allowed to accompany the representative of the department on the inspection without a loss of pay. Where no public employee representative accompanies the representative of the department on an inspection, the representative of the department shall consult with a reasonable number of employees concerning matters of employee safety and health. The department shall keep a written record of the name of any person accompanying the department representative during the inspection, the name of any employee consulted and the name of any authorized collective bargaining agent notified of the inspection by the public employer under sub. (7) (e).

Condition Found: On 6/18/09 the Project Liaison/Assistant Director of Physical Plant repeatedly denied the employee representative access to a meeting between the Department of Commerce Representative and the Project Liaison/Assistant Director of Physical Plant, the Director of the Physical Plant, and the Hazardous Materials and Asbestos Coordinator that was part of an inspection.

On 7/7/09 the Director of Human Resources denied access to the employee representative from participation in a meeting between the Department of Commerce Representative and the Chancellor, the Director of Human Resources and the Director of University Communications that was part of the inspection and the report of friable asbestos materials.

The Department of Commerce Representative informed the above UW Stout employees that Wisconsin Administrative Codes and Statutes require access be provided to the employee representative and, after debate, the access was provided.

On 7/7/09 following the above meeting the Executive Director of Health and Safety informed the Department of Commerce Representative that the Department of Commerce would not be allowed to continue the inspection if the employee representative was present.

At this time a call from the Department of Commerce Section Chief-Public Sector Safety and Mines to the UW Stout Director of Human Resources was required for the University of Wisconsin Stout to come into compliance with this chapter of the Wisconsin Administrative Code.

The 9/15/03 UW Stout asbestos exposure complaint investigation, the 2/21/06 UW Stout asbestos exposure complaint investigation, and the 6/1/06 UW Stout lead and asbestos exposure complaint investigation had been conducted in compliance with this Wisconsin Administrative Code and Statute.

Corrective Action Order: The Chancellor shall

- a. ensure that all UW Stout employees are aware that employee representatives shall be provided an opportunity to accompany a Department of Commerce Representative.
- b. identify when and how the change in policy occurred between the 6/1/06 and the 6/18/09 inspections and take steps to prevent recurrence.
- c. provide documentation of the above actions and means of evaluating their effectiveness.

2. Code Section Violated: 1926.1101(a) Scope and application.

(a)(3) Construction, alteration, repair, maintenance, or renovation of structures, substrates, or portions thereof, that contain asbestos;

(a)(7) Coverage under this standard shall be based on the nature of the work operation involving asbestos exposure.

1926.1101 Appendix I Medical surveillance guidelines for asbestos, non-mandatory I. Route of Entry Inhalation, ingestion. II Toxicology Clinical evidence of the adverse effects associated with exposure to asbestos is present in the form of several well-conducted epidemiological studies of occupationally exposed workers, family contacts of workers, and persons living near asbestos mines. These studies have shown a definite association between exposure to asbestos and an increased incidence of lung cancer, pleural and peritoneal mesothelioma, gastrointestinal cancer, and asbestosis. The latter is a disabling fibrotic lung disease that is caused only by exposure to asbestos. Exposure to asbestos has also been associated with an increased incidence of esophageal, kidney, laryngeal, pharyngeal, and buccal cavity cancers. As with other known chronic occupational diseases, disease associated with asbestos generally appears about 20 years following the first occurrence of exposure: There are no known acute effects associated with exposure to asbestos.

Condition Found: Since the Fall of 2003 UW Stout has been found to be in violation of this standard resulting in employee exposure to asbestos on 4 separate inspections. Chancellor Sorensen has been involved in or informed of the inspections and results for each of these exposures.

Material provided by the Chancellor to the Department of Commerce on 4/18/06 to abate code violations in Report and Orders #T0599-64-06 contained work practices that required all UW Stout Work Orders that could result in exposure to asbestos be referred to the Asbestos Coordinator for assessment of employee exposure and/or abatement prior to issuance of the Work Order.

A 6/12/06 letter from the Department of Commerce to the Chancellor informed him that a Work Order created on 5/18/06 did not meet these requirements.

A 3/12/09 Work Order, provided to and implemented by UW Stout employees, was found to

- direct employees to cut up a water filter
- did not state the water filter was covered in 400 square feet of ACM insulation
- incorrectly stated "Pipe insulation may be hot"
- be issued without assessment of conditions and exposure by the Asbestos Coordinator.

(See Bowman Hall attachment.)

The Chancellor's administration sent a directive on 3/24/09 to the Department of Safety and Risk Management that resulted in multiple violations of this standard including the lack of identification of asbestos exposures. (See all attachments, the directive is transcribed at the top of the "Competent Person" attachment.)

On 7/6/09 the Chancellor's administration placed a person without required training and certifications in the Competent Person position in violation of this standard.

On 7/13/09 the Chancellor was informed, both verbally and in writing, of the requirements of this standard for the UW Stout employee designated to perform the Competent Person tasks.

The Chancellor was informed that any employee performing Competent Person tasks for UW Stout employees conducting tasks or working in areas covered by this standard that did not meet the requirements of the standard placed UW Stout in violation of this standard.

At the writing of this Report information has not been provided that the Chancellor used this knowledge to provide training for his administration or that he was able to abate this violation.

Corrective Action Orders: The Chancellor shall:

- a. read and understand the requirements of this standard.

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- b. ensure that people or departments in his administration with any oversight or effect on conditions or processes covered by, or related to, this standard are trained in their requirements.
- c. not permit his administration to violate Wisconsin Comms, this standard, or other standards adopted by Wisconsin Comms either by directive or action.
- d. ensure compliance with all requirements of 1926.1101 by all employees of the University of Wisconsin Stout.

3. Code Section Violated: S. 101.11 (1), Wis.Stats., provides that:

101.11(1) Every employer shall furnish employment which shall be safe for the employees therein and shall furnish a place of employment which shall be safe for employees therein and for frequenters thereof and shall furnish and use safety devices and safeguards, and shall adopt and use methods and processes reasonably adequate to render such employment and places of employment safe, and shall do every other thing reasonably necessary to protect the life, health, safety, and welfare of such employees and frequenters. Every employer and every owner of a place of employment or a public building now or hereafter constructed shall so construct, repair or maintain such place of employment or public building as to render the same safe.

1926.1101(d)(3) In addition, all employers of employees exposed to asbestos hazards shall comply with applicable protective provisions to protect their employees. For example, if employees working immediately adjacent to a Class I asbestos job are exposed to asbestos due to the inadequate containment of such job, their employer shall either remove the employees from the area until the enclosure breach is repaired; or perform an initial exposure assessment pursuant to (f) of this section.

1926.1101(d)(4) All employers of employees working adjacent to regulated areas established by another employer on a multi-employer work-site, shall take steps on a daily basis to ascertain the integrity of the enclosure and/or the effectiveness of the control method relied on by the primary asbestos contractor to assure that asbestos fibers do not migrate to such adjacent areas.

1926.1101(o)(2) Required Inspections by the Competent Person. Section 1926.20(b)(2) which requires health and safety prevention programs to provide for frequent and regular inspections of the job sites, materials, and equipment to be made by competent persons, is incorporated.

1926.20(b)Accident prevention responsibilities.

(b)(1) It shall be the responsibility of the employer to initiate and maintain such programs as may be necessary to comply with this part.

(b)(2) Such programs shall provide for frequent and regular inspections of the job sites, materials, and equipment to be made by competent persons designated by the employers.

Condition Found: The Vice Chancellor of Administration and Student Life Services issued a directive that was relayed on 3/24/09 by the Executive Director of Health and Safety to the Director of Safety and Risk Management, and the Hazardous Materials and Asbestos Coordinator, that the Department of Safety and Risk Management “would not be involved with DSF projects.”

The directive abrogated the UW Stout Asbestos Management Policy and denied access for the Hazardous Materials and Asbestos Coordinator employee to information related to employee exposure to asbestos and those work areas where employees worked in or adjacent to DSF asbestos abatement or construction activities. (see “Competent Person” attachment.) The effect of the prevention of UW Stout actions required by 1926.1101(d)(3), (d)(4), (o)(2), and 1926.20(b) are described in the Conditions Found sections below.

The Hazardous Materials and Asbestos Coordinator shall be referred to as the Asbestos Coordinator for the remainder of this Report and in the Attachments. When “new” is put in front of this title it refers to actions/statements taken by the Executive Director of Health and Safety, after the Asbestos

Coordinator position title and responsibilities were assigned to him on 7/6/09. For clarity, even after the 7/6/09 date these designations are utilized.

6/17/09 the Executive Director of Health and Safety informed the Asbestos Coordinator that "after the Jarvis and Price commons incidents," "the Administration, and myself, stopped short of directing safety staff to stay off project sites jointly occupied by Stout Staff." However, emails and actions indicate the Department of Safety and Risk Management and the Asbestos Coordinator's access to information and employee locations were still perceived to be obstructed.

- 6/18/09 12:21PM email from the Asbestos Coordinator to the Buildings and the Grounds Supervisor for Price Commons responding to a request for information affecting UW Stout employee work area conditions, copied to the Executive Director Health and Safety and the Director of Safety and Risk Management. "In talking to" Executive Director of Health and Safety "about the commons elevator situation, I was reminded that this may still be looked at as part of a DSF project and I need to stay clear. Any additional attention to this matter should be between" the Project Liaison "and a DSF representative."
- 6/18/09 email from the Executive Director of Health and Safety to the Buildings and Grounds Supervisor for Price Commons. "Also-since the abatement work and any possible clearance testing was done by the contractor under DSF supervision it is more direct communication for them to answer questions on this, rather than us."

Result of continuing proscription of access to data related to UW Stout employee exposure to asbestos can be found in the Price Commons Elevator Shaft Clearance Report.

Actions **not** taken by UW Stout:

- Identification of the insufficient critical barrier along the wall adjoining the elevator shaft for the Price Commons asbestos abatement regulated area where the Project Liaison stated "The elevator shaft and stair well walls runs up to the structural steel beams with about a 1-2" gap where the fire proofing and top of the wall meet." the most probable source of elevator shaft contamination.
- Provide access on 6/10/09 to the entire elevator shaft for DSF Asbestos Consultant conducting visual inspection and air clearance.
- Require DSF to provide sufficient information regarding air clearance for re-occupancy to evaluate actual UW Stout employee exposures.
- Oversight of UW Stout employee occupied work areas to prevent contractor access to areas with ACM without UW Stout knowledge (Price Commons room#161 contamination and abandonment by unknown party.) Note: DSF Construction Coordinator/Supervisor states it was not their employee.
- Verification of prompt removal of waste by abatement contractor (two bags labeled ACM found in Price Commons basement months after end of project.)
- Daily walk through of common work areas to ensure practices such as the above do not occur.
- Requirement that Class II work meet the minimum requirements of the standard when performed in UW Stout work areas. (Jarvis Hall)
- Remove employees from areas with potential exposure to asbestos fibers until exposure below Excursion Level and Permissible Exposure Levels can be verified. (Jarvis Hall and Sports and Fitness Center)
- Verification that asbestos contractor had covered air return vents to HVAC system.
- Adjustment or shut down of Jarvis Hall HVAC system that mixes return air from vents in abatement areas with supply air to UW Stout student and employee work areas during finals week. Including the room for temporary ACM waste storage. (Jarvis Hall)
- Ensure that the asbestos abatement contractor does not remove regulated area controls or open containment areas for Class I regulated areas prior to clearance testing. (Jarvis Hall)

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- Ensure asbestos abatement regulated areas have proper signage to warn UW Stout employees. (Jarvis Hall.)
- Ensure information is provided to employees, such as posting the Occupant Protection Plan where and as required by DHS 159. Repeated complaint by employees is lack of all signage.
- Ensure procedures implemented for UW Stout employee safety prior to DSF contractor activities:
 - 5/7/09 Project Manager identified hazard to DSF contractor employees created by drilling and climbing through ACM ceiling tiles above UW Stout employee work areas in the Sports and Fitness Center.
 - 6/22/09 UW Stout employees worked under the ceiling tile activities between 7AM and after 1:45PM.
- Remove employees, Halt Work Orders or provide pre-assessment/ongoing assessment of conditions for UW Stout employees, when work involved entering, working in, or working near DSF construction activities. (Price Commons, Jarvis Hall, Sports and Fitness)
- Ensure prompt investigation or immediate removal of employees from work areas where uncontained asbestos abatement is reported.
 - 6/22/09 removal of employees more than 5.5 hours after Director of Safety and Risk Management received report while he was on site per employee written statements. (Sports and Fitness.)
 - 7/13/09 verification by new Asbestos Coordinator that employees were not in an uncontained Class II work area 6 hours after notification from employee and 3.25 hours after relay of notification by Department of Commerce Representative. (Hovlid Hall.)
 - 7/22/09 new Asbestos Coordinator email order to remove employees received 19.5 hours from report of discovery of unclaimed bags labeled Asbestos, one outer bag opened and later observed to be ripped. (Price Commons)

In a 9/2/09 email the new Asbestos Coordinator stated "Again, we feel that our program is ahead of our peers." To evaluate this statement several other UWs were called and their Competent Persons were interviewed. (see "Comparison" attachment.)

Corrective Action Order: The Chancellor shall ensure that actions required by this standard when UW Stout employees are working in or adjacent to asbestos abatement projects conducted by DSF, UW Stout, or any contractor or agency are fully implemented.

The Chancellor shall ensure that where actions are required to be conducted by a Competent Person the UW Stout employee performing those actions meets the requirements of the standard.

Abatement material shall include

- a. documentation of the Chancellor's provision of authority to act to the employee assigned Competent Person responsibilities.
- b. documentation of actions the Chancellor will take if the Competent Person's directives are not followed, are amended, or abrogated in anyway.
- c. written protocols requiring the Competent Person to personally and immediately go to the location and observe any reported asbestos incident, to assess the level of hazard and take any action required by the standard.
- d. documentation of training for all UW Stout personnel in the above, including specific reporting venues for asbestos hazards and for reporting lack of action by the Competent Person.
- e. documentation of actions the Chancellor will take upon receipt of information that the Competent Person did not fulfill his responsibilities as required by the standard.

Note: if UW Stout employees are working in areas where they are exposed to asbestos from DSF contractor activities it demonstrates that DSF permission for UW Stout employee presence has already been provided and additional DSF permission or escort is not required and should not delay response.

4. Code Section Violated: S. 101.11 (1), Wis.Stats., provides that:
101.11(2)(a) No employer shall require, permit or suffer any employee to go or be in any employment or place of employment which is not safe, and no such employer shall fail to furnish, provide and use safety devices and safeguards, or fail to adopt and use methods and processes reasonably adequate to render such employment and place of employment safe, and no such employer shall fail or neglect to do every other thing reasonably necessary to protect the life, health, safety or welfare of such employees and frequenters; and no employer or owner, or other person shall hereafter construct or occupy or maintain any place of employment, or public building, that is not safe, nor prepare plans which shall fail to provide for making the same safe.

Condition Found: The Vice Chancellor of Administrative and Student Life Services' directive "we (the department) would not be involved with DSF projects." removed access for the UW Stout Safety and Risk Management employees to UW Stout work areas in or near DSF projects.

UW Stout did not replace the Safety and Risk Management employees with other employees that could effectively utilize methods or processes or take actions to protect the life, health, and safety of employees and frequenters. The results of this failure or neglect were:

- Lack of effective evaluation of the Price Commons elevator car for employee exposures to asbestos while riding in, servicing, and waiting for the elevator. (See Clearance Report attachment.)
- Lack of communication of hazard with asbestos abatement contractor and DSF Asbestos Consultant regarding contamination of elevator shaft, including lower shaft and pit:
 - Occupant Protection Plan states scope of work removal of fire proofing at top of shaft.
 - Clearance report states scope of work removal of fire proofing at top of shaft.
 - Clearance for re-occupancy samples taken for top of shaft.
 - Lower shaft not visually inspected
- Lack of Communication between DSF Contractors, DSF, and UW Stout of work required for abatement of Price Commons second floor resulting in:
 - Lack of provision of location of ACM in mechanical chases
 - Contractor accessing chase, disturbing asbestos and leaving debris without reporting it to either DSF or UW Stout
- Lack of recognition that air sampling for abatement of contamination for rooms 203, 204 and 209 in the Sports and Fitness Center was conducted in rooms 204, 205, 208, and 209.
 - The air sampling report stated that these rooms had plastic barriers on the doors, indicating that room 203 did not.
 - Use of non aggressive Background sampling data for re-occupancy. Meaning air currents were not provided to include fibers settled on desks and filing cabinets in the sample.
- Lack of recognition or control of physical hazards to UW Stout employees from demolition activities, such as falling ceilings, lights crashing to the floor, arc welding, flying objects.
- Lack of recognition or control of chemical hazards created by transporting hazardous chemicals through demolition activities. (Jarvis Hall.)
- Lack of recognition that the Jarvis Hall asbestos abatement contractor was in violation of 1926.1101(g) when breaking ACM bench tops without required minimum controls.
- Project Liaison emails and Jarvis Hall employee emails show lack of communication regarding demolition schedule resulting in above conditions.
- Project Liaison statements regarding DSF and emails to DSF regarding demolition contractor activities demonstrate an inability by UW Stout to protect employee physical safety and employee health from DSF contractor activities. (Jarvis Hall)
- Lack of recognition or effective actions to correct the Vice Chancellor of Administrative and Student Life Services by UW Stout.

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- Lack of recognition that Vice Chancellor of Administrative and Student Life Services “General Protocol” stating “Questions or concerns about potentially harmful jobsite exposure are to be reported to Safety and Risk Management (SRM) immediately. SRM will make an initial assessment and if appropriate, will take immediate steps to protect UW Stout employees” was delivered on 6/26/09, 4 days after employees reported:
 - the Director of Safety and Risk Management was informed at 8:15AM of drilling into ACM tiles above work areas
 - The Director of Safety and Risk Management was in the building at the time of the report.
 - The Director of Safety and Risk Management left the building without going to the contaminated work area.
 - The employees called the Office of Safety and Risk Management at 1PM
 - The Director of Safety and Risk Management and Executive Director of Health and Safety returned to the building at 1:45PM
 - The Executive Director of Health and Safety stated that they interviewed the contractor, made a phone call, and then removed the employees from exposure to friable airborne asbestos fibers.
- Lack of recognition that the Vice Chancellor of Administrative and Student Life Services “General Protocol”, delivered to the Director of Physical Plant on 6/26/09, was not provided to or not followed by all UW Stout employees.
 - The Assistant Director of Physical Plant stated on 9/11/09 that “Any employee within Physical plant should contact their Supervisor and/or the Project Liaison directly or with a concern.”
 - Email and interviews indicate that reports of hazardous conditions for events occurring on 7/13/09 (see Hovlid Hall attachment) and 7/22/09 (see Price Commons attachment) were reported to the employee’s union and/or the Assistant Director of Human Resources.
 - While the first report on 7/22/09 was to the new Asbestos Coordinator in Safety and Risk Management at 10:27AM, conditions remained unchanged and a second report was made to the Assistant Director of Human Resources after 3PM.

Corrective Action Orders: The Chancellor shall use methods and processes reasonably adequate to demonstrate the Price Commons Freight Elevator is safe under conditions of use by employees.

The Chancellor shall:

- a. close the Price Commons elevator until verification of safe conditions can be documented.
- b. have the lower shaft of the Price Commons freight elevator HEPA vacuumed by an appropriately certified employee.
- c. have clearance air sampling conducted for the elevator shaft with aggressive techniques and for the interior of the elevator car while it is moving.
- d. have the sampling results reviewed by a Competent Person, meeting the requirements of this standard, the Competent Person shall provide documentation to the Chancellor and the Department of Commerce that the freight elevator is cleared for re-occupancy and the basis for that decision.
- e. ensure that only after receiving approval from the Department of Commerce will the Price Commons freight elevator be opened for use.

The Chancellor shall:

- f. ensure that hazardous work area reporting protocols are understood by all UW Stout employees and asbestos hazards are promptly reported to the Competent Person
- g. ensure that prompt, effective, and appropriate response follows all reports of hazards by UW Stout employees
- h. ensure clear and sufficient information is provided to DSF

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- to ensure that contractors do not disturb ACM without knowledge or compliance with the standard
 - to ensure that contractors take appropriate actions when they do disturb ACM
 - so that the scope of work for sites contaminated with asbestos includes abatement of contamination,
 - so that air sampling for re-occupancy is conducted in a manner and location that evaluates actual employee exposures and conditions.
- j. ensure that all asbestos abatement areas are cleared as described in the Competent Person's required training.
- k. ensure that any asbestos abatement report of clearance be accompanied by sufficient documentation to verify clearance methods and evaluate results.
- l. ensure that the documentation is provided either directly, or immediately after receipt by the University, to the Competent Person.
- m. ensure that no employee enters or subsequent action takes place in abatement areas until clearance is approved by the Competent Person.
- n. require written notification of approval by the Competent Person to the Chancellor verify these actions have been taken.
- o. ensure that the records of asbestos abatement projects include this verification.
- p. identify who was responsible for coordinating contaminated area abatement activities and re-occupancy sampling with DSF and other UW Stout employees for the elevator and Sports and Fitness and train them to recognize the errors in the Condition Found and in the requirements of the Corrective Action Order to prevent recurrence.

When employees are directed to perform work in or near demolition, construction, or other activities with potential for hazards, from any employer, in addition to the employee's normal work environment the Chancellor shall:

- q. ensure that hazards will be identified and controlled (engineering, work practice, training, or provision of PPE) or the employees shall not be permitted entry.
- r. ensure no subsequent administrative directive or policy shall interfere with the provision of a safe workplace.
- s. provide documentation of the protocols that ensure the above actions are taken for future DSF, UW Stout, or contractor projects with potential to create physical or health hazards for UW Stout employees.
- t. provide documentation of implementation of the protocols for future projects and conditions as they occur to the Department of Commerce to verify implementation of abatement material.

5. Code Section Violated: 1926.1101(o) Competent person. 1926.1101(o)(1) General. On all construction worksites covered by this standard, the employer shall designate a competent person, having the qualifications and authorities for ensuring worker safety and health required by Subpart C, General Safety and Health Provisions for Construction (29 CFR 1926.20 through 1926.32).

1926.1101(o)(4) Training for the competent person.

(o)(4)(i) For Class I and II asbestos work the competent person shall be trained in all aspects of asbestos removal and handling, including: abatement, installation, removal and handling; the contents of this standard; the identification of asbestos; removal procedures, where appropriate; and other practices for reducing the hazard. Such training shall be obtained in a comprehensive course for supervisors that meets the criteria of EPA's Model Accredited Plan (40 CFR part 763, subpart E, Appendix C), such as a course conducted by an EPA-approved or state-approved training provider, certified by EPA or a state, or a course equivalent in stringency, content, and length.

(o)(4)(ii) For Class III and IV asbestos work, the competent person shall be trained in aspects of asbestos handling appropriate for the nature of the work, to include procedures for setting up glove

bags and mini-enclosures, practices for reducing asbestos exposures, use of wet methods, the contents of this standard, and the identification of asbestos. Such training shall include successful completion of a course that is consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92(a)(2), or its equivalent in stringency, content, and length. Competent persons for Class III and IV work, may also be trained pursuant to the requirements of paragraph (o)(4)(i) of this section.

1926.1101(b) Competent person means, in addition to the definition in 29 CFR 1926.32 (f), one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take **prompt corrective measures** to eliminate them, as specified in 29 CFR 1926.32(f): in addition, for Class I and Class II work who is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan (40 CFR 763) for supervisor, or its equivalent and, for Class III and Class IV work, who is trained in a manner consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92 (a)(2).

(bold added)

Condition Found: The October 2008 job description for the Hazardous Materials and Asbestos Coordinator, the employee hired for that position, and 2008 updated Asbestos Management Policy were in compliance with this standard, if followed, on March 23, 2009.

The directive of the Vice Chancellor of Administrative and Student Life Services on March 24, 2009 prohibited the Asbestos Coordinator's access to worksites where employees worked in or adjacent to asbestos abatement activities.

Information provided regarding the directive did not include identification of the UW Stout employee required to take on the tasks of Competent Person that are required by this standard for the proscribed areas.

However, the Project Liaison performed the following tasks without including/consulting Asbestos Coordinator:

- Inspection of work area in response to an employee complaint of exposure to asbestos
- Received and relayed DSF clearance results to UW Stout employees.
- Directed employee participation in, and PPE for, clean up of asbestos contamination of UW Stout employee work area adjacent to Class I regulated area.
- Directed UW Stout employees to contain and remove waste from Class I regulated area.
- Listed as "Contact Name" on Non Hazardous Waste Shipment Manifest or Asbestos Manifest"
- Identified as "point of contact" for asbestos abatement projects by DSF Hazardous Materials Abatement Manager
- Provided identification, and misidentification, of asbestos containing material to DSF and Department of Commerce (see Price Commons attachment, room #161, and Jarvis Hall, 6/18/09 interview re: bench tops, attachment

10/2/09 email response to Department of Commerce query regarding the Project Liaison's asbestos certification by the Project Liaison contained the following statements "I do not have current certifications in asbestos. The building and grounds superintendent and maintenance supervisors here at UW-Stout are certified as abatement supervisors, for conducting maintenance work. Any State funded projects are managed by DSF for the abatement activities."

The DSF Construction Representative's reply to the Asbestos Coordinator's notification of UW Stout employee exposure to uncontained asbestos abatement by DSF contractors was to require the

Asbestos Coordinator to route such information through the Project Liaison, who would return from vacation in 5 days. (See Price Commons attachment.)

Emails and reports regarding UW Stout employee exposures to asbestos and related actions provided were sometimes forwarded to the Asbestos Coordinator but seldom included the Asbestos Coordinator when generated above the UW Stout Supervisor level. For example, of the 21 emails at the Project Liaison or higher UW Stout administrative level regarding the Price Commons elevator contamination that were provided 17 did not include the Asbestos Coordinator, 1 included the Asbestos Coordinator, and, after 7/6/09, 3 included the new Asbestos Coordinator. (see all attachments, all to and copied to recipients are named.)

Multiple emails from the Asbestos Coordinator to the Project Liaison, DSF personnel and others state that he is trying to stay on the sidelines of DSF abatement projects. Replies and emails to the Asbestos Coordinator do not dispute these intentions.

The following emails and events indicate that the effect of the directive, even after the 6/17/09 amendment, was to remove the Asbestos Coordinator as Competent Person for UW Stout employees in DSF asbestos abatement areas:

- 6/18/09 the Buildings and Grounds Supervisor requested information on the contamination clean up from the Asbestos Coordinator responded via email "In talking to" Executive Director of Health and Safety "about the commons elevator situation, I was reminded that this may still be looked at as part of a DSF project and I need to stay clear. Any additional attention to this matter should be between" the Project Liaison "and a DSF representative."
6/18/09 email from the Executive Director of Health and Safety to Buildings and Grounds Supervisor for Price Commons. "Also-since the abatement work and any possible clearance testing was done by the contractor under DSF supervision it is more direct communication for them to answer questions on this, rather than us."
- A 6/18/09 meeting scheduled with the Project Liaison regarding employee asbestos exposure complaints had to be delayed. While the Physical Plant Director had been notified and was present the Project Liaison had not notified the Asbestos Coordinator. At the Department of Commerce Representative's request the Asbestos Coordinator was invited and soon arrived.
- During the 6/18/09 meeting the Department of Commerce Representative asked who was responsible for UW Stout employee safety in work areas shared with DSF. The response from the Asbestos Coordinator was that it was "very hazy", the Director of Physical Plant has no attributed response in the transcription and the Project Liaison stated that it was DSF's policy that the Asbestos Coordinator stay out. The Vice Chancellor of Administrative and Student Life Services' directive was not mentioned.
- 6/22/09 the Director of Safety and Risk Management left the Sports and Fitness Center without observing the exposure conditions or removing employees from exposure and took no action until after the Project Manager had been notified.

On July 6, 2009 the Vice Chancellor directed the Executive Director of Health and Safety to take over the Competent Person duties performed by the Asbestos Coordinator.

The job description for the Executive Director of Health and Safety does not require any certifications for, or tasks involving, asbestos. The Executive Director of Health and Safety stated he was last certified as an asbestos supervisor and had managed an asbestos project in the mid 1990's. The projects were in Florida.

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- 6/5/09 email from Executive Director of Health and Safety to Project Liaison "I told him that" the Asbestos Coordinator "was off today and we couldn't give any guidance. He should go through the project asbestos folks and ask them."
- 6/22/09 The Executive Director of Health and Safety had to call the Asbestos Coordinator to ask if employees should be removed from an area where contractors were drilling into ACM tile above their work areas.
- 7/7/09 the Executive Director of Health and Safety was unable to answer any question regarding performance of the Competent Person's responsibilities and this standard.

The new Asbestos Coordinator actions reported to date:

- 7/7/09 informed at 1:30PM by Department of Commerce of friable asbestos in a classroom used by 11-13 year olds. Reported to Department of Commerce as removed on 7/8/09, after students returned to the classroom the following day.
- 7/13/09 at approximately 9AM informed by UW Stout employees of ongoing exposure to uncontained asbestos abatement in Hovlid Hall,
 - stated to the Department of Commerce representative that he had heard about it at 12:45AM
 - approximately 1:45PM he told the Department of Commerce Representative that he had no more information and was waiting for a phone call
 - per his Report he went to observe conditions at 3PM
 - he later stated that he had information about the status at Hovlid Hall at 1:20PM but did not inform the Department of Commerce Representative because he was not sure until he saw for himself.
- 7/14/09 in the Report of Hovlid Hall by the new Asbestos Coordinator stated in the "CONCLUSION: There was likely no active disturbance of asbestos during this work."
 - However, he failed to notice that he had drawn a black arrow across a recently cleared pipe fitting in a picture above the following comments "Exposed pipe (rust color) after fiberglass insulation removal. Many of the soft white elbows (black arrows) and other fittings in this room could contain asbestos and should be treated as PACM (presumed asbestos containing)."
 - When asked about the picture the new Asbestos Coordinator
 - stated that the plumber had poked the fitting and decided it was not ACM
 - stated that the material could not be tested because the plumber took it away with him rather than throw it in UW Stout trash.
 - provided no additional comments on the plumbers actions or indicated that he understood that UW Stout had violated 1926.1101(k)(2)(ii).
- 7/22/09 10:27AM new Asbestos Coordinator is notified of two bags labeled ACM in Price Commons, one with a closed outer bag, the other with an open outer bag. He directs the employee to notify the Project Liaison. 3PM employees investigate the bags further and see the one has rips in it.
- 7/23/09 7:38AM the Project Liaison directs UW Stout employees to re-bag and remove ACM waste.
 - New Asbestos Coordinator did not, at any time, go to Price Commons in order to comply this standard or with UW Stout's A1 of job description: "Visually inspect buildings for asbestos....during unforeseeable aspects of maintenance operations, or upon specific request from University Community."
 - New Asbestos Coordinator did not direct, or encourage, employees to stay away from the asbestos in their work area, as required by the Asbestos Management Plan.
 - New Asbestos Coordinator did not look for, or direct employees to look for, other debris from asbestos abatement contractor or other activities.
- 7/23/09 employees found a cart similar to one observed to be used by the asbestos abatement contractor to move abatement debris and note the cart contains loose white

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powder that may be ACM. This material is abated by UW Stout certified asbestos supervisor. The new Asbestos Coordinator did not collect, or direct to be collected, a sample to verify or disprove if the material was ACM.

- On 9/30/09, after he stated he had received one of the 4 certifications required by DHS to perform some of the tasks required by the UW Stout job description for Asbestos Coordinator, still could not answer a question regarding the communication of hazards requirements of 1926.1101. (See "Competent Person" attachment, last section.)
- 9/11/09 The Certification for Asbestos Building Inspector was obtained from a class that was accredited for Illinois and in Indiana, not for Wisconsin indicating that he was not trained in the "Relevant Federal, State, and local regulatory requirements, procedures, and standards," as is required in the training criteria of the EPA's Model Accredited Plan.
- 10/5/09 new Asbestos Coordinator did not follow training directive requiring Class III training for employees participating in sampling. (see item #7 and Competent Person attachment, end.) (See Competent Person, Events at Hovlid Hall, Events at Sports and Fitness, and Events at Price Commons attachments.)

Corrective Action Orders: a. The Chancellor shall ensure that any employee assigned some or all of the Competent Person responsibilities under this standard has the training and certifications required to document the training.

b. The Chancellor shall provide the Competent Person with the authority to fulfill the requirements of the standard.

c. The Chancellor shall be informed of any obstruction of the Competent Person's ability to perform their required duties.

d. The abatement material shall include:

- A form which can be used by the Competent Person to report such obstruction with a time and date entry. The form shall include
 - the specific action, directive, or change in policy that prevents him from performing the actions required by this standard.
 - the time and date received by the Chancellor,
 - the actions taken by the Chancellor to ensure UW Stout is in compliance with this standard
 - the date those actions were carried out.
 - the date, two weeks after Chancellor notification, when the form was sent to the Department of Commerce due to lack of response by the Chancellor.

This form shall be kept with any reports or materials related to the report of obstruction and shall be made available to the Department of Commerce upon request.

e. Until such time as the Chancellor has designated a Competent Person, having the qualifications and authorities for ensuring worker safety and health required by this standard UW Stout shall:

- Remove all UW Stout employees from areas of DSF contractor, or other contractor, activities whenever those areas contain asbestos.
- Discontinue or prevent any UW Stout employee activities in areas with ACM or PACM until a Competent Person that meets the requirements of the standard has been provided.
- Ensure that the employee assigned to the title with duties that fall under the Competent Person definition of this standard is provided with the authority and access to meet the requirements of the standard.

6. Code Section Violated: 1926.1101(b) definitions **Class II asbestos work** means activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not

limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

Disturbance means activities that disrupt the matrix of ACM or PACM, crumble or pulverize ACM or PACM, or generate visible debris from ACM or PACM. Disturbance includes cutting away small amounts of ACM and PACM, no greater than the amount which can be contained in one standard sized glove bag or waste bag in order to access a building component. In no event shall the amount of ACM or PACM so disturbed exceed that which can be contained in one glove bag or waste bag which shall not exceed 60 inches in length and width.

Negative Initial Exposure Assessment means a demonstration by the employer, which complies with the criteria in paragraph (f)(2)(iii) of this section, that employee exposure during an operation is expected to be consistently below the PELs.

1926.1101(f) Exposure assessments and monitoring

(f)(2)(iii) Negative Exposure Assessment: For any one specific asbestos job which will be performed by employees who have been trained in compliance with the standard, the employer may demonstrate that employee exposures will be below the PELs by data which conform to the following criteria;

(f)(2)(iii)(A) Objective data demonstrating that the product or material containing asbestos minerals or the activity involving such product or material cannot release airborne fibers in concentrations exceeding the TWA and excursion limit under those work conditions having the greatest potential for releasing asbestos; or

(f)(2)(iii)(B) Where the employer has monitored prior asbestos jobs for the PEL and the excursion limit within 12 months of the current or projected job, the monitoring and analysis were performed in compliance with the asbestos standard in effect; and the data were obtained during work operations conducted under workplace conditions "closely resembling" the processes, type of material, control methods, work practices, and environmental conditions used and prevailing in the employer's current operations, the operations were conducted by employees whose training and experience are no more extensive than that of employees performing the current job, and these data show that under the conditions prevailing and which will prevail in the current workplace there is a high degree of certainty that employee exposures will not exceed the TWA and excursion limit; or

(f)(2)(iii)(C) The results of initial exposure monitoring of the current job made from breathing zone air samples that are representative of the 8-hour TWA and 30-minute short-term exposures of each employee covering operations which are most likely during the performance of the entire asbestos job to result in exposures over the PELs.

1926.1101(n) Recordkeeping. 1926.1101(n)(1) Objective data relied on pursuant to paragraph (f) to this section.

(n)(1)(i) Where the employer has relied on objective data that demonstrates that products made from or containing asbestos or the activity involving such products or material are not capable of releasing fibers of asbestos in concentrations at or above the permissible exposure limit and/or excursion limit under the expected conditions of processing, use, or handling to satisfy the requirements of paragraph (f), the employer shall establish and maintain an accurate record of objective data reasonably relied upon in support of the exemption.

(n)(1)(ii) The record shall include at least the following information:

(n)(1)(ii)(A) The product qualifying for exemption;

(n)(1)(ii)(B) The source of the objective data;

(n)(1)(ii)(C) The testing protocol, results of testing, and/or analysis of the material for the release of asbestos;

(n)(1)(ii)(D) A description of the operation exempted and how the data support the exemption; and

(n)(1)(ii)(E) Other data relevant to the operations, materials, processing, or employee exposures covered by the exemption.

(n)(1)(iii) The employer shall maintain this record for the duration of the employer's reliance upon such objective data.

1926.1101(n)(2) Exposure measurements.

(n)(2)(i) The employer shall keep an accurate record of all measurements taken to monitor employee exposure to asbestos as prescribed in paragraph (f) of this section. NOTE: The employer may utilize the services of competent organizations such as industry trade associations and employee associations to maintain the records required by this section.

(n)(2)(ii) This record shall include at least the following information:

(n)(2)(ii)(A) The date of measurement;

(n)(2)(ii)(C) Sampling and analytical methods used and evidence of their accuracy;

(n)(2)(ii)(D) Number, duration, and results of samples taken;

(n)(2)(ii)(E) Type of protective devices worn, if any; and

1926.1101(n)(2)(ii)(F) Name, social security number, and exposure of the employees whose exposures are represented.

(n)(2)(iii) The employer shall maintain this record for at least thirty (30) years, in accordance with 29 CFR 1910.20.

Conditions Found: The Project Liaison responded to an employee complaint that UW Stout employees shared a Class II asbestos abatement area without required controls. ACM bench tops were broken up with hammers and pulled off the ACM mastic holding them onto cabinets with crowbars, Class II level work, without required controls, see item #6.

- The Project Liaison did not copy the Asbestos Coordinator on the complaint and went to evaluate the employees concerns, per email documentation and employee interview.
- The Project Liaison did not remove the employees from the exposure to an unknown concentration of asbestos fibers released during the break up and while the bench tops were moved in carts through occupied areas, onto a shared elevator, to a room on the first floor where the ventilation ducts were not covered to prevent entrainment of fibers in the return air.
- The Project Liaison did not require the HVAC system with mixed return and supply air be turned off during multiple asbestos abatement projects, in addition to the above, until the week following the report of ACM breakage.
- The Project Liaison did not conduct, or require to be conducted, air monitoring to collect objective data to demonstrate that employees exposed to such handling practices did not exceed the Excursion limit or Permissible Exposure Limit.

(See Events at Jarvis Hall)

Corrective Action Order: The Chancellor shall ensure that reports of employee exposure to asbestos receive a response in compliance with this standard.

The Chancellor shall ensure that employees that are not qualified to perform hazard assessments or responses are not required to do so and are corrected when they take it upon themselves.

The Chancellor shall ensure that employees receive training in the appropriate person to report an asbestos hazard to and that that person is qualified, empowered, and motivated to provide the response required to comply with the standard and protect employee health and safety.

The Chancellor shall provide documentation that the protocols for the above are developed, written, and implemented.

7. Code Section Violated: 1926.1101(b) Definitions **Class III asbestos work** means repair and maintenance operations, where "ACM", including TSI and surfacing ACM and PACM, is likely to be disturbed.

Negative Initial Exposure Assessment means a demonstration by the employer, which complies with the criteria in paragraph (f)(2)(iii) of this section, that employee exposure during an operation is expected to be consistently below the PELs.

Regulated area means: an area established by the employer to demarcate areas where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos, exceed or there is a reasonable possibility they may exceed the permissible exposure limit. Requirements for regulated areas are set out in paragraph (e) of this section.

1926.1101(c) Permissible exposure limits (PELs).

1926.1101(c)(1) Time-weighted average limit (TWA). The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter of air as an eight (8) hour time-weighted average (TWA), as determined by the method prescribed in Appendix A to this section, or by an equivalent method.

1926.1101(c)(2) Excursion limit. The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty (30) minutes, as determined by the method prescribed in Appendix A to this section, or by an equivalent method.

1926.1101(e) Regulated areas.

(e)(1) All Class I, II and III asbestos work shall be conducted within regulated areas. All other operations covered by this standard shall be conducted within a regulated area where airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed a PEL.

Regulated areas shall comply with the requirements of paragraphs (2), (3),(4) and (5) of this section.

(e)(2) Demarcation. The regulated area shall be demarcated in any manner that minimizes the number of persons within the area and protects persons outside the area from exposure to airborne asbestos. Where critical barriers or negative pressure enclosures are used, they may demarcate the regulated area. Signs shall be provided and displayed pursuant to the requirements of paragraph (k)(7) of this section.

(e)(3) Access. Access to regulated areas shall be limited to authorized persons and to persons authorized by the Act or regulations issued pursuant thereto.

(e)(4) Respirators. All persons entering a regulated area where employees are required pursuant to paragraph (h)(1) of this section to wear respirators shall be supplied with a respirator selected in accordance with paragraph (h)(2) of this section.

(e)(5) Prohibited activities. The employer shall ensure that employees do not eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the regulated area.

(e)(6) Competent Persons. The employer shall ensure that all asbestos work performed within regulated areas is supervised by a competent person, as defined in paragraph (b) of this section. The duties of the competent person are set out in paragraph (o) of this section.

1926.1101(g)(9) Work Practices and Engineering Controls for Class III asbestos work. Class III asbestos work shall be conducted using engineering and work practice controls which minimize the exposure to employees performing the asbestos work and to bystander employees.

(g)(9)(i) The work shall be performed using wet methods.

(g)(9)(ii) To the extent feasible, the work shall be performed using local exhaust ventilation.

(g)(9)(iii) Where the disturbance involves drilling, cutting, abrading, sanding, chipping, breaking, or sawing of thermal system insulation or surfacing material, the employer shall use impermeable

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dropcloths, and shall isolate the operation using mini-enclosures or glove bag systems pursuant to paragraph (g)(5) of this section or another isolation method.

(g)(9)(iv) Where the employer does not produce a "negative exposure assessment" for a job, or where monitoring results show the PEL has been exceeded, the employer shall contain the area using impermeable dropcloths and plastic barriers or their equivalent, or shall isolate the operation using a control system listed in and in compliance with paragraph (g)(5) of this section.

(g)(9)(v) Employees performing Class III jobs, which involve the disturbance of thermal system insulation or surfacing material, or where the employer does not produce a "negative exposure assessment" or where monitoring results show a PEL has been exceeded, shall wear respirators which are selected, used and fitted pursuant to provisions of paragraph (h) of this section.

(g)(10) Class IV asbestos work. Class IV asbestos jobs shall be conducted by employees trained pursuant to the asbestos awareness training program set out in paragraph (k)(9) of this section. In addition, all Class IV jobs shall be conducted in conformity with the requirements set out in paragraph (g)(1) of this section, mandating wet methods, HEPA vacuums, and prompt clean up of debris containing ACM or PACM.

(g)(10)(i) Employees cleaning up debris and waste in a regulated area where respirators are required shall wear respirators which are selected, used and fitted pursuant to provisions of paragraph (h) of this section.

(g)(10)(ii) Employers of employees who clean up waste and debris in, and employers in control of, areas where friable thermal system insulation or surfacing material is accessible, shall assume that such waste and debris contain asbestos.

1926.1101(h) Respiratory protection. (h)(1) General. For employees who use respirators required by this section, the employer must provide respirators that comply with the requirements of this paragraph.

Respirators must be used during:

(h)(1)(iv) Class II and III asbestos work for which a negative-exposure assessment has not been conducted.

(h)(v) Class III asbestos work when TSI or surfacing ACM or PACM is being disturbed.

1926.1101(i) Protective clothing. (1) General. The employer shall provide and require the use of protective clothing, such as coveralls or similar whole-body clothing, head coverings, gloves, and foot coverings for any employee exposed to airborne concentrations of asbestos that exceed the TWA and/or excursion limit prescribed in paragraph (c) of this section, or for which a required negative exposure assessment is not produced, or for any employee performing Class I operations which involve the removal of over 25 linear or 10 square feet of TSI or surfacing ACM and PACM.

(i)(4) Inspection of protective clothing.

(i)(4)(i) The competent person shall examine worksuits worn by employees at least once per workshift for rips or tears that may occur during performance of work.

1926.1101(k)(9)(v) Training for Class III employees shall be consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92(a)(2). Such a course shall also include "hands-on" training and shall take at least 16 hours. Exception: For Class III operations for which the competent person determines that the EPA curriculum does not adequately cover the training needed to perform that activity, training shall include as a minimum all the elements included in paragraph (k)(9)(viii) of this section and in addition, the specific work practices and engineering controls set forth in paragraph (g) of this section which specifically relate to that activity, and shall include "hands-on" training in the work practices applicable to each category of material that the employee disturbs.

Condition Found: Untrained and uncertified employees were directed to cut up water tanks insulated with ACM surfacing material, generating inhalable asbestos fibers without following UW Stout assessment protocols or provision of respirators or other requirements of the standard. The employees reported observing and stopping other employees cleaning up debris from ACM tank insulation without following Class IV requirements of the standard. (See Events at Bowman Hall attachment.)

10/5/09 new Asbestos Coordinator dug into a pressed board for an asbestos sample and then directed the building's Maintenance man to repair the disturbed ACM area with caulk. The Maintenance man was not trained in Class III work as required by the standard to perform the task.

10/23/09 phone interview: the Director of Sales and Marketing for Training Division stated that the instructor informed him the content of the training provided to the new Asbestos Coordinator in September included the information that anyone else involved in the asbestos sampling had to have Class III level training.

Corrective Action Ordered: a. The Chancellor shall ensure that all of the requirements of the standard are in place prior to and during work involving exposure or potential exposure to asbestos.

b. The Chancellor shall ensure that the UW Stout Asbestos Coordinator is trained in the requirements of this standard.

c. The Chancellor shall ensure that the UW Stout Asbestos Coordinator, or any employee, do not require employees without training and certification to conduct asbestos repair activities.

Abatement of this item is related to abatement of Item #2, #5 and #7 of this Report.

8. Code Section Violated: 1926.1101(o)(3) Additional Inspections. In addition, the competent person shall make frequent and regular inspections of the job sites, in order to perform the duties set out below in paragraph (o)(3)(i) and (ii) of this section. For Class I jobs, on-site inspections shall be made at least once during each work shift, and at any time at employee request. For Class II, III, and IV jobs, on-site inspections shall be made at intervals sufficient to assess whether conditions have changed, and at any reasonable time at employee request.

(o)(3)(i) On all worksites where employees are engaged in Class I or II asbestos work, the competent person designated in accordance with paragraph (e)(6) of this section shall perform or supervise the following duties, as applicable:

(o)(3)(i)(A) Set up the regulated area, enclosure, or other containment;

(o)(3)(i)(B) Ensure (by on-site inspection) the integrity of the enclosure or containment;

(o)(3)(i)(C) Set up procedures to control entry to and exit from the enclosure and/or area;

(o)(3)(i)(D) Supervise all employee exposure monitoring required by this section and ensure that it is conducted as required by paragraph (f) of this section;

(o)(3)(i)(E) Ensure that employees working within the enclosure and/or using glove bags wear respirators and protective clothing as required by paragraphs (h) and (i) of this section;

(o)(3)(i)(F) Ensure through on-site supervision, that employees set up, use and remove engineering controls, use work practices and personal protective equipment in compliance with all requirements;

(o)(3)(i)(G) Ensure that employees use the hygiene facilities and observe the decontamination procedures specified in paragraph (j) of this section;

(o)(3)(i)(H) Ensure that through on-site inspection, engineering controls are functioning properly and employees are using proper work practices; and,

(o)(3)(i)(I) Ensure that notification requirement in paragraph (k) of this section are met.

Condition Found: Employees were directed to cut up water tanks insulated with ACM, generating inhalable asbestos fibers without notifying the Asbestos Coordinator resulting in work being conducted without compliance with the above requirements of the standard. (See Events at Bowman Hall attachment.)

Corrective Action Ordered: The Chancellor shall ensure that all of the requirements of the standard are in place prior to and during work involving exposure or potential exposure to asbestos. Abatement of this item is related to abatement of Item #2 of this Report.

9. Code Section Violated: 1926.1101(f) Exposure assessments and monitoring.
1926.1101(f)(1) General monitoring criteria.

(f)(1)(i) Each employer who has a workplace or work operation where exposure monitoring is required under this section shall perform monitoring to determine accurately the airborne concentrations of asbestos to which employees may be exposed.

(f)(1)(ii) Determinations of employee exposure shall be made from breathing zone air samples that are representative of the 8-hour TWA and 30-minute short-term exposures of each employee.

(f)(1)(iii) Representative 8-hour TWA employee exposure shall be determined on the basis of one or more samples representing full-shift exposure for employees in each work area. Representative 30-minute short-term employee exposures shall be determined on the basis of one or more samples representing 30 minute exposures associated with operations that are most likely to produce exposures above the excursion limit for employees in each work area.

1926.1101(f)(2) Initial Exposure Assessment.

(f)(2)(i) Each employer who has a workplace or work operation covered by this standard shall ensure that a "competent person" conducts an exposure assessment immediately before or at the initiation of the operation to ascertain expected exposures during that operation or workplace. The assessment must be completed in time to comply with requirements which are triggered by exposure data or the lack of a "negative exposure assessment," and to provide information necessary to assure that all control systems planned are appropriate for that operation and will work properly.

(f)(2)(ii) Basis of Initial Exposure Assessment: Unless a negative exposure assessment has been made pursuant to paragraph (f)(2)(iii) of this section, the initial exposure assessment shall, if feasible, be based on monitoring conducted pursuant to paragraph (f)(1)(iii) of this section. The assessment shall take into consideration both the monitoring results and all observations, information or calculations which indicate employee exposure to asbestos, including any previous monitoring conducted in the workplace, or of the operations of the employer which indicate the levels of airborne asbestos likely to be encountered on the job. For Class I asbestos work, until the employer conducts exposure monitoring and documents that employees on that job will not be exposed in excess of the PELs, or otherwise makes a negative exposure assessment pursuant to paragraph (f)(2)(iii) of this section, the employer shall presume that employees are exposed in excess of the TWA and excursion limit.

Condition Found: Employees were directed to cut into ACM tank insulation without provision of air monitoring. (See Events at Bowman Hall.)

Employees were required to work in a Class II abatement area without negative exposure assessment. (See Jarvis Hall.)

Information has not been provided regarding the new Asbestos Coordinator's training, experience, and ability to perform air monitoring as required by this standard.

At the writing of this Report the new Asbestos Coordinator does not meet the Respiratory Protection standard's requirements for donning a respirator to conduct air monitoring in areas that might exceed the PEL. Where this is required, and until such time as he meets the standard, this process shall be contracted out.

Corrective Action Orders: a. The Chancellor shall ensure that activities that require air monitoring are conducted by a Competent Person and performed when required by the standard, the manner required by the standard and that the analysis of the results are conducted as required by the standard.

- b. The Chancellor shall ensure that the Competent Person meets the requirements of the Respiratory Protection standard prior to conducting air monitoring in areas requiring respiratory protection.
- c. The Chancellor shall ensure that no activity requiring asbestos air monitoring is conducted until UW Stout has hired a qualified contractor or has a Competent Person trained to conduct air monitoring as required by this standard.
- d. Documentation of the training and qualifications to verify that the UW Stout Competent Person is not only capable of calibrating equipment, taking the appropriate number of samples in the appropriate manner, and analyzing the results shall be provided to the Department of Commerce prior to any Class 1 through IV activities taking place in UW Stout work areas, including when the work is conducted by a contractor or DSF.

10. Code Section Violated: 1926.1101(b) Definitions. **Building/facility Owner** is the legal entity, including a lessee, which exercises control over management and record keeping functions relating to a building and/or facility in which activities covered by this standard take place.

Presumed Asbestos Containing Material means thermal system insulation and surfacing material found in buildings constructed no later than 1980. The designation of a material as "PACM" may be rebutted pursuant to paragraph (k)(5) of this section.

Surfacing Material means material that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes).

Thermal system insulation (TSI) means ACM applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.

Thermal system insulation ACM is thermal system insulation which contains more than 1% asbestos.

1926.1101(k) Communication of hazards.

1926.1101(k)(1) This section applies to the communication of information concerning asbestos hazards in construction activities to facilitate compliance with this standard. Most asbestos-related construction activities involve previously installed building materials. Building owners often are the only and/or best sources of information concerning them. Therefore, they, along with employers of potentially exposed employees, are assigned specific information conveying and retention duties under this section. Installed Asbestos Containing Building Material. Employers and building owners shall identify TSI and sprayed or troweled on surfacing materials in buildings as asbestos-containing, unless they determine in compliance with paragraph (k)(5) of this section that the material is not asbestos-containing. Asphalt and vinyl flooring material installed no later than 1980 must also be considered as asbestos containing unless the employer, pursuant to paragraph (g)(8)(i)(I) of this section determines that it is not asbestos-containing. If the employer/building owner has actual knowledge, or should have known through the exercise of due diligence, that other materials are asbestos-containing, they too must be treated as such. When communicating information to employees pursuant to this standard, owners and employers shall identify "PACM" as ACM. Additional requirements relating to communication of asbestos work on multi-employer worksites are set out in paragraph (d) of this section.

1926.1101(k)(2) Duties of building and facility owners.

(k)(2)(i) Before work subject to this standard is begun, building and facility owners shall determine the presence, location, and quantity of ACM and/or PACM at the work site pursuant to paragraph (k)(1) of this section.

(k)(2)(ii) Building and/or facility owners shall notify the following persons of the presence, location and quantity of ACM or PACM, at the work sites in their buildings and facilities. Notification either shall be in writing, or shall consist of a personal communication between the owner and the person to whom notification must be given or their authorized representatives:

(k)(2)(ii)(A) Prospective employers applying or bidding for work whose employees reasonably can be expected to work in or adjacent to areas containing such material;

(k)(2)(ii)(B) Employees of the owner who will work in or adjacent to areas containing such material;

(k)(2)(ii)(C) On multi-employer worksites, all employers of employees who will be performing work within or adjacent to areas containing such materials;

(k)(2)(ii)(D) Tenants who will occupy areas containing such material.

(k)(3) Duties of employers whose employees perform work subject to this standard in or adjacent to areas containing ACM and PACM. Building/facility owners whose employees perform such work shall comply with these provisions to the extent applicable.

(k)(3)(i) Before work in areas containing ACM and PACM is begun; employers shall identify the presence, location, and quantity of ACM, and/or PACM therein pursuant to paragraph (k)(1) of this section.

(k)(3)(ii) Before work under this standard is performed employers of employees who will perform such work shall inform the following persons of the location and quantity of ACM and/or PACM present in the area and the precautions to be taken to insure that airborne asbestos is confined to the area.

(k)(3)(ii)(A) Owners of the building/facility;

(k)(3)(ii)(B) Employees who will perform such work and employers of employees who work and/or will be working in adjacent areas.

(k)(3)(iii) Within 10 days of the completion of such work, the employer whose employees have performed work subject to this standard, shall inform the building/facility owner and employers of employees who will be working in the area of the current location and quantity of PACM and/or ACM remaining in the area and final monitoring results, if any.

(k)(4) In addition to the above requirements, all employers who discover ACM and/or PACM on a worksite shall convey information concerning the presence, location and quantity of such newly discovered ACM and/or PACM to the owner and to other employers of employees working at the work site, within 24 hours of the discovery.

Condition Found: The Hazardous Materials Abatement Manager stated that the Project Liaison is the point of contact for DSF and that UWs are not supposed to communicate directly with the DSF contractors to avoid confusion. Therefore the Project Liaison is responsible for provision of information to DSF, including location and quantity of asbestos. DSF is responsible for distribution of this information to their contractors.

- Email, WALMS and interview information show that the Project Liaison was misinformed as to which bench tops in Jarvis Hall contained asbestos and which did not. The bench tops and instructions were hand written onto the plans provided to DSF contractors.
- The Project Liaison stated in a 5/14/09 email the bench tops were all removed by the asbestos abatement contractors.
- The DSF Construction Coordinator/Supervisor stated in an interview bench top removal was done by a general contractor, other benches were stamped and abated by ADMS.
- The Asbestos Coordinator stated during the 6/18/09 interview with the Project Liaison, Director of Physical Plant, and Local 383 President that the demolition contractor was frustrated that he could not tell which bench tops were asbestos containing and painted the ACM tops with orange paint. The Project Liaison and others heard and did not contradict this statement. Orange paint on ACM fittings were observed in pictures of pipes in Hovlid Hall.
- A plumber in Hovlid Hall, which contains over 1,000 ACM pipe fittings per WALMS data, decided a pipe fitting was not ACM by poking it, per new the Asbestos Coordinator's Report.
- The UW Stout Project Manager provided documentation to plumbing contractor to provide to OSHA investigator showing room #24 in Hovlid Hall had pipe fittings replaced in the '80s.
 - This information was not mentioned by anyone other than the OSHA Compliance Officer during this inspection and is not included in the WALMS report.

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- Pictures taken by the new Asbestos Coordinator show three kinds of fittings, plaster, dirty canvas and hard plastic in addition to the recently cleared elbow.
- The Maintenance man who worked in the building since 1994 statements indicate that he thought the fittings
- Employees were not informed of ACM insulation on a water tank they were instructed to cut up.
- The Scope of Work for the abatement and clearance testing of contamination and removal of fireproofing in the elevator shaft only listed removal of fireproofing.
- 9/18/09 email from the DSF Hazardous Materials Abatement Coordinator email to the Department of Commerce stated that the DSF Asbestos Consultant “is hired by DSF to develop asbestos abatement design/bid documents and oversee abatement/conduct visual and final air testing.”
- Rooms in the Sports and Fitness Center sampled by the DSF Asbestos Coordinator do not match the rooms reported by UW Stout employees as contaminated.
- Sampling results were transmitted to employees as clearance results but taken and reported as background samples.
- Price Commons elevator shaft clearance sampling date 6/10/09, report date on Price Commons for DSF 7/22/09, report sent to UW Stout 9/25/09. Received by Competent Person: no Competent Person employed in Asbestos Coordinator position at this time.
- Jarvis Hall sampling dates 5/18 – 7/13/09, report date on Jarvis Hall for DSF 7/16/09, report sent to UW Stout 9/25/09, received by Competent Person: no Competent Person employed in Asbestos Coordinator position at this time.
- Sports and Fitness sampling date 6/23/09, report date on Sports and Fitness Center for DSF 7/20/09, report sent to UW Stout 9/25/09, received by Competent Person: no Competent Person employed in Asbestos Coordinator position at this time.
- 9/25/09 email from DSF Hazardous Materials Abatement Manager to the Department of Commerce “As a clarification, the test results are generally given verbally for individual areas in the interest of time in the construction schedule and followed up in writing with a formal report as attached.”

(See all attachments.)

- Corrective Action Order:
- a. The Chancellor shall ensure that all previous, current, and future documentation regarding asbestos, present or removed, is entered into the WALMS data.
 - b. The Chancellor shall verify that every fitting in room #24 Hovlid Hall was abated at the same time or identify which fittings are still ACM/PACM.
 - c. The Chancellor shall ensure that, once it is available, accurate information is provided to DSF, contractors, and employees.
 - d. The Chancellor shall require DSF to provide accurate documentation to UW Stout regarding asbestos abatement results.
 - e. The Chancellor shall provide documentation of the source of the data and the completion of the WALMS update to the Department of Commerce.
 - f. The Chancellor shall require that sampling data is provided within 10 days of the completion of work.
 - g. The Chancellor shall find out if DSF provided background sampling results as clearance for re-occupancy results or if a UW Stout employee transmitted the results as clearance for re-occupancy. If the latter the Chancellor shall ensure that the UW Stout employee is trained in the difference.
 - h. The Chancellor shall ensure that the sampling results are given to and interpreted by someone competent to do so.

11. Code Section Violated: 1926.1101(k)(6) At the entrance to mechanical rooms/areas in which employees reasonably can be expected to enter and which contain ACM and/or PACM, the building owner shall post signs which identify the material which is present, its location, and appropriate work practices which, if followed, will ensure that ACM and/or PACM will not be disturbed. The employer shall ensure, to the extent feasible, that employees who come in contact with these signs can comprehend them. Means to ensure employee comprehension may include the use of foreign languages, pictographs, graphics, and awareness training.

Conditions Found: Employees brought a sample of tank insulation to be tested for asbestos indicating the material was not identified (Bowman Hall.)

The plumbing contractor guessed the status of the pipe fitting indicating mechanical rooms containing ACM were not posted. (Hovlid Hall)

9/30/09 email from the new Asbestos Coordinator to the Department of Commerce "I don't think it is standard practice to sign doors like this, unless there is an active abatement going in the space. I think we are very typical of the UW in using the WALMS system. I don't think the state nor the UW wants to sign every room with ACM present, or we will further the recession by using up the country's supply plastic labels. Just kidding, but is that what you are suggesting? I'm confused." (Comparison attachment)

Corrective Action Order: The Chancellor shall ensure that the employee placed in the Competent Person position is not confused by the requirements of the standard.

The Chancellor shall ensure that the entrance to mechanical rooms/areas in which employees reasonably can be expected to enter and which contain ACM and/or PACM rooms have a sign posted that meet the requirements of this section of the standard.

The Chancellor shall provide documentation of the rooms requiring a sign are posted by listing the rooms identified as meeting the definition, listing the location of ACM and PACM in the room and verifying that they have a sign.

12. Code Section Violated: 1910.132(d)(1) The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall:
- (i) Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment;
 - (ii) Communicate selection decisions to each affected employee; and,
 - (iii) Select PPE that properly fits each affected employee.
- (d)(2) The employer shall verify that the required workplace hazard assessment has been performed through a written certification that identifies
- the workplace evaluated;
 - the person certifying that the evaluation has been performed;
 - the date(s) of the hazard assessment;
 - and, which identifies the document as a certification of hazard assessment.

Condition Found: The document provided as the certificate of hazard assessment did not meet the requirements of the standard.

Employees were required to work in areas with new physical and chemical hazards created by demolition and asbestos abatement work without assessment of the hazards or provision of PPE, such

as hard hats worn by the contractors working in the same area and by the Chancellor when he walked through their work area, per employee statements during the 6/18/09 interviews.

Jarvis Hall custodial employee written statement "While going to all three floors" another custodial employee "and I encountered lights crashing to the floor (I'm not sure the florescent bulbs were removed), a man was slamming the door knobs off the doors, which were airborne down the hall, Arc welding going on....it was a total mess of destruction going on. There was so much... I think dust in the air our eyes, they were getting very red. When I got home that day... I threw my contacts out that I was wearing in the garbage."

(See Jarvis Hall attachment.)

Corrective Action Order: a. The Chancellor shall discover:

- why potential hazards for his walk through were anticipated and PPE provided when the hazards for UW Stout employees working in the area were not.
 - why UW Stout administrators did not require employees in the work area to have the same PPE as those walking through the work area.
 - why the Director of Safety and Risk Management, who was reported to be working in Jarvis Hall during the demolition and evacuation did not bring UW Stout into compliance with the standard.
- b. The Chancellor shall ensure that
- The Director of Safety and Risk Management is provided sufficient training, authority, and time to perform the job functions required by this standard.
 - hazards in the UW Stout employee work areas are assessed
 - hazards to UW Stout employees from outside contractors are anticipated and assessed
 - the assessment results in the selection and provision of PPE that fits and is effective in protecting employees.
 - whenever conditions of the work areas change the changes in hazards are anticipated, assessed, and PPE is selected and provided prior to employee exposure.
- c. The Chancellor shall develop procedures for UW Stout employees, DSF, and DSF contractors to report upcoming working conditions so that their impact on UW Stout employees can be assessed for hazards so that PPE selected, employees trained and PPE provide prior to use.
- d. The Chancellor shall provide documentation of the provision of training, time and authority for the Director of Safety and Risk Management to perform his job duties to the Department of Commerce.
- e. The Chancellor shall provide the completed Certification of Hazard Assessment to the Department of Commerce **prior to** conducting training in PPE.
- f. The Certification of Hazard shall be of sufficient detail to verify that specific hazards have been assessed and specific PPE for those hazards has been selected.

13. Code Section Violated: 1910.252(b)(2)(iii) Protection from arc welding rays. Where the work permits, the welder should be enclosed in an individual booth painted with a finish of low reflectivity such as zinc oxide (an important factor for absorbing ultraviolet radiations) and lamp black, or shall be enclosed with noncombustible screens similarly painted. Booths and screens shall permit circulation of air at floor level. Workers or other persons adjacent to the welding areas shall be protected from the rays by noncombustible or flameproof screens or shields or shall be required to wear appropriate goggles.

Condition Found: Employees were required to work in areas reported to contain arc welding without provision of screens or appropriate goggles.

Corrective Action Order: The Chancellor shall

- a. identify why the optical hazard was not recognized, reported, and did not receive appropriate attention from the Director of Safety and Risk Management.
- b. Ensure all that employee work areas are assessed, even if temporarily, for hazards from welding rays.
- c. provide documentation of a and b to Department of Commerce.

14. Code Section Violated: 1910.138(a) General requirements. Employers shall select and require employees to use appropriate hand protection when employees' hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes.

1910.138(b) Selection. Employers shall base the selection of the appropriate hand protection on an evaluation of the performance characteristics of the hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified.

Condition Found: While the Chemistry Department provided gloves they were not evaluated for permeability of the chemicals used. For example, the gloves used by the Department of Chemistry Chair for protection against Carbon Disulfide, severe irritation or burns to skin and eyes, were rated for food service.

Other chemicals in the Chemistry department include:

- Methyl Cyanide which can be absorbed through the skin and slowly form cyanide anions leading to internal asphyxiation
- Benzene, can cause leukemia
- Methylene Chloride, absorbs through the skin, linked to increased risk of cancer.

The Biology Department Chemical Hygiene Plan states "Gloves should be worn for work with strong corrosives or acutely toxic chemicals."

- Should indicate an optional sentence and cannot be enforced by the Chemical Hygiene Officer.
- The specification of "gloves" indicates that a glove protective for the strong corrosives or acutely toxic chemical has not been identified.
- The statement would not identify such hazards as for Methyl Cyanide as requiring, or suggesting, glove use.

Corrective Action Order: a. The Chancellor shall discover why the Department of Chemistry Chair was wearing gloves from a box marked food service for protection against hazardous chemicals.

b. The Chancellor shall ensure that the Chemical Hygiene Officers for the Chemistry and Biology Departments work with the Director of Safety and Risk Management to identify, obtain, and require to be worn, gloves protective against the chemicals used in the manner they are used by UW Stout employees.

c. The Chancellor shall ensure the Director of Safety and Risk Management has sufficient training and support to identify and provide gloves protective against chemical and physical hazards for other UW Stout departments.

d. The Chancellor shall provide documentation of a, b, and c.

When gloves are required for sharp edges or for specific chemical exposures ensure that the glove selected will protect the employee from the specific hazard.

Recommendation: Contact the glove manufacturer and give them the information on the chemicals involved, from the MSDS, and the way the chemicals are used.

15. Code Section Violated: 1910.132(f)(1) The employer shall provide training to each employee who is required by this section to use Personal Protective Equipment (PPE.) Each such employee shall be trained to know at least the following:
- (i) When PPE is necessary;
 - (ii) What PPE is necessary;
 - (iii) How to properly don, doff, adjust, and wear PPE;
 - (iv) The limitations of the PPE; and,
 - (v) The proper care, maintenance, useful life and disposal of the PPE.
- (f)(2) Each affected employee shall demonstrate an understanding of the training specified in paragraph (f)(1) of this section, and the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.
- (f)(4) The employer shall verify that each affected employee has received and understood the required training through a written certification that contains the name of each employee trained, the date(s) of training, and that identifies the subject of the certification.

Condition Found: The documentation of training in PPE was included in the Safety & Risk Management Safety Training Log and contained entries such as "PPE, Haz Waste, Bk Care, Resp." Information was insufficient to demonstrate whether the employee understood the training or if the training included the PPE the employee was required to wear.

Corrective Action Order: a. The Chancellor shall ensure that the training is conducted after the Certification of Hazard Assessment has been completed.
b. The Chancellor shall ensure that the training has been conducted and understood.
c. The Chancellor shall ensure that the subject of training is specific enough to document which employees have been trained in what protective equipment required for the physical and/or chemical hazards of a task or piece of equipment to document that required training has been provided.

16. Code Section Violated: 1910.1450(e)(3) The Chemical Hygiene Plan shall include each of the following elements and shall indicate specific measures that the employer will take to ensure laboratory employee protection;
- (e)(3)(viii) Provisions for additional employee protection for work with particularly hazardous substances. These include "select carcinogens," reproductive toxins and substances which have a high degree of acute toxicity. Specific consideration shall be given to the following provisions which shall be included where appropriate:
- (e)(3)(viii)(A) Establishment of a designated area;
 - (e)(3)(viii)(B) Use of containment devices such as fume hoods or glove boxes;
 - (e)(3)(viii)(C) Procedures for safe removal of contaminated waste; and
 - (e)(3)(viii)(D) Decontamination procedures.

Condition Found: The inventory provided by the Chemistry Department Chemical Hygiene Officer contains mutagens, carcinogens, teratogens and acutely toxic chemicals. The Chemical Hygiene Plan did not contain the above requirements. An inventory of the Biology Department's chemicals was not provided.

Corrective Action Order: a. The Chancellor shall ensure that the hazards for all chemicals in the Biology and Chemistry department storage rooms and work areas are evaluated.

- b. The Chancellor shall ensure that chemicals with the hazards described above are either discarded or set aside until the requirements of this standard can be met.
- c. The Chancellor shall ensure that the provision of employee protections required by this standard for chemicals used by UW Stout employees are documented and included in the appropriate Chemical Hygiene Plan.

17. Code Section Violated: 1910.1018(a) Scope and application. This section applies to all occupational exposures to inorganic arsenic except that this section does not apply to employee exposures in agriculture or resulting from pesticide application, the treatment of wood with preservatives or the utilization of arsenically preserved wood.

1910.1018(b) Definitions. "Action level" means a concentration of inorganic arsenic of 5 micrograms per cubic meter of air (5 ug/m³) averaged over any eight (8) hour period.

"Inorganic arsenic" means copper aceto-arsenite and all inorganic compounds containing arsenic except arsine, measured as arsenic (As).

Condition Found: The inventory provided by the Chemistry Department Chemical Hygiene Officer lists 1.5 kg of compounds containing inorganic arsenic. The change in use location, or changes to labs after return, will affect ventilation and employee exposures, and other conditions of use.

Corrective Action Order: a. The Chancellor shall require the Biology Department to conduct an inventory or review their inventory for the presence of inorganic arsenic.

b. The Chancellor shall discover and correct how the Chemistry Department Chemical Hygiene Officer was not trained in the expanded standards.

c. The Chancellor shall verify, or require, the Director of Safety and Risk Management and the Biology Department Chemical Hygiene Officer is trained in the expanded standards.

b. The Chancellor shall require the Chemical Hygiene Officers and employees in the Safety and Risk Management office to review the standard, compare it to conditions, tasks and exposures at UW Stout and comply with those parts that are required.

c. The Chancellor shall require the above people to provide a report of their actions and results that he shall review for completeness prior to submitting it to the Department of Commerce for abatement of this violation.

18. Code Section Violated: 1910.1026(a) Scope. 1910.1026(a)(1) This standard applies to occupational exposures to chromium (VI) in all forms and compounds in general industry, except:

(a)(2) Exposures that occur in the application of pesticides regulated by the Environmental Protection Agency or another Federal government agency (e.g., the treatment of wood with preservatives);

(a)(3) Exposures to portland cement; or

(a)(4) Where the employer has objective data demonstrating that a material containing chromium or a specific process, operation, or activity involving chromium cannot release dusts, fumes, or mists of chromium (VI) in concentrations at or above 0.5 µg/m³ as an 8-hour time-weighted average (TWA) under any expected conditions of use.

1910.1026(b) Objective data means information such as air monitoring data from industry-wide surveys or calculations based on the composition or chemical and physical properties of a substance demonstrating the employee exposure to chromium (VI) associated with a particular product or material or a specific process, operation, or activity. The data must reflect workplace conditions closely resembling the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.

1910.1026(c) Permissible exposure limit (PEL). The employer shall ensure that no employee is exposed to an airborne concentration of chromium (VI) in excess of 5 micrograms per cubic meter of air ($5 \mu\text{g}/\text{m}^3$), calculated as an 8-hour time-weighted average (TWA).

1910.1026(d) Exposure determination.

(d)(1) General. Each employer who has a workplace or work operation covered by this section shall determine the 8-hour TWA exposure for each employee exposed to chromium (VI). This determination shall be made in accordance with either paragraph (d)(2) or paragraph (d)(3) of this section.

Condition Found: The inventory provided by the Chemistry Department Chemical Hygiene Officer lists 17 substances containing Chromium. The change in use location, or changes to labs after return, will affect ventilation and employee exposures, and other conditions of use.

Corrective Action Order: a. The Chancellor shall require the Biology Department to conduct an inventory or review their inventory for the presence of chromium (VI).

b. The Chancellor shall require the Chemical Hygiene Officers and employees in the Safety and Risk Management office to review the standard, compare it to conditions, tasks and exposures at UW Stout and comply with those parts that are required.

c. The Chancellor shall require the above people to provide a report of their actions and results that he shall review for completeness prior to submitting it to the Department of Commerce for abatement of this violation.

19. Code Section Violated: 1910.1027(a) "Scope." This standard applies to all occupational exposures to cadmium and cadmium compounds, in all forms, and in all industries covered by the Occupational Safety and Health Act, except the construction-related industries, which are covered under 29 CFR 1926.63.

1910.1027(b) "Definitions."

"Action level (AL)" is defined as an airborne concentration of cadmium of 2.5 micrograms per cubic meter of air ($2.5 \mu\text{g}/\text{m}^3$), calculated as an 8-hour time-weighted average (TWA).

1910.1027(d) "Exposure Monitoring." 1910.1027(d)(1) "General."

1910.1027(d)(1)(i) Each employer who has a workplace or work operation covered by this section shall determine if any employee may be exposed to cadmium at or above the action level.

Condition Found: The inventory provided by the Chemistry Department Chemical Hygiene Officer lists 12 substances that are or contain cadmium. The change in use location, or changes to labs after return, will affect ventilation and employee exposures, and other conditions of use.

Corrective Action Order: a. The Chancellor shall require the Biology Department to conduct an inventory or review their inventory for the presence of cadmium.

b. The Chancellor shall require the Chemical Hygiene Officers and employees in the Safety and Risk Management office to review the standard, compare it to conditions, tasks and exposures at UW Stout and comply with those parts that are required.

c. The Chancellor shall require the above people to provide a report of their actions and results that he shall review for completeness prior to submitting it to the Department of Commerce for abatement of this violation.

20. Code Section Violated: 1910.1052 This occupational health standard establishes requirements for employers to control occupational exposure to methylene chloride (MC). Employees exposed to MC are at increased risk of developing cancer, adverse effects on the heart, central nervous system and liver, and

skin or eye irritation. Exposure may occur through inhalation, by absorption through the skin, or through contact with the skin. MC is a solvent which is used in many different types of work activities, such as paint stripping, polyurethane foam manufacturing, and cleaning and degreasing. Under the requirements of paragraph (d) of this section, each covered employer must make an initial determination of each employee's exposure to MC. If the employer determines that employees are exposed below the action level, the only other provisions of this section that apply are that a record must be made of the determination, the employees must receive information and training under paragraph (l) of this section and, where appropriate, employees must be protected from contact with liquid MC under paragraph (h) of this section. The provisions of the MC standard are as follows:

1910.1052(a) Scope and application. This section applies to all occupational exposures to methylene chloride (MC), Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment.

1910.1052(h) Protective Work Clothing and Equipment. 1910.1052(h)(1) Where needed to prevent MC-induced skin or eye irritation, the employer shall provide clean protective clothing and equipment which is resistant to MC, at no cost to the employee, and shall ensure that each affected employee uses it. Eye and face protection shall meet the requirements of 29 CFR 1910.133 or 29 CFR 1915.153, as applicable.

Condition Found: The inventory provided by the Chemistry Department Chemical Hygiene Officer contains 12 Liters of Methylene Chloride. The change in use location, or changes to labs after return, will affect ventilation and employee exposures, and other conditions of use.

Corrective Action Order: a. The Chancellor shall require the Biology Department to conduct an inventory or review their inventory for the presence of methylene chloride.

b. The Chancellor shall require the Chemical Hygiene Officers and employees in the Safety and Risk Management office to review the standard, compare it to conditions, tasks and exposures at UW Stout and comply with those parts that are required.

c. The Chancellor shall require the above people to provide a report of their actions and results that he shall review for completeness prior to submitting it to the Department of Commerce for abatement of this violation.

21. Code Section Violated: 1910.1048(a) Scope and application. This standard applies to all occupational exposures to formaldehyde, i.e. from formaldehyde gas, its solutions, and materials that release formaldehyde. "Formaldehyde" means the chemical substance, HCHO, Chemical Abstracts Service Registry No. 50-00-0.

1910.1048(c) Permissible Exposure Limit (PEL) -(c)(1) TWA: The employer shall assure that no employee is exposed to an airborne concentration of formaldehyde which exceeds 0.75 parts formaldehyde per million parts of air (0.75 ppm) as an 8-hour TWA.

(c)(2) Short Term Exposure Limit (STEL): The employer shall assure that no employee is exposed to an airborne concentration of formaldehyde which exceeds two parts formaldehyde per million parts of air (2 ppm) as a 15-minute STEL.

1910.1048(d)(1)(i) Each employer who has a workplace covered by this standard shall monitor employees to determine their exposure to formaldehyde.

1910.1048(d) Exposure monitoring - 1910.1048(d)(1) General. 1910.1048(d)(1)(i) Each employer who has a workplace covered by this standard shall monitor employees to determine their exposure to formaldehyde.

Condition Found: The inventory provided by the Chemistry Department Chemical Hygiene Officer contains 4 Liters of formaldehyde. The change in use location, or changes to labs after return, will affect ventilation and employee exposures, and other conditions of use.

Corrective Action Order: a. The Chancellor shall require the Biology Department to conduct an inventory or review their inventory for the presence of formaldehyde.

b. The Chancellor shall require the Chemical Hygiene Officers and employees in the Safety and Risk Management office to review the standard, compare it to conditions, tasks and exposures at UW Stout and comply with those parts that are required.

c. The Chancellor shall require the above people to provide a report of their actions and results that he shall review for completeness prior to submitting it to the Department of Commerce for abatement of this violation.

22. Code Section Violated: 1910.1028(a) Scope and application. 1910.1028(a)(1) This section applies to all occupational exposures to benzene. Chemical Abstracts Service Registry No. 71-43-2, except as provided in paragraphs (a)(2) and (a)(3) of this section.

1910.1028(b) Definitions. "Action level" means an airborne concentration of benzene of 0.5 ppm calculated as an 8-hour time-weighted average.

1910.1028(c) Permissible exposure limits (PELs) -1910.1028(c)(1) Time-weighted average limit (TWA).

The employer shall assure that no employee is exposed to an airborne concentration of benzene in excess of one part of benzene per million parts of air (1 ppm) as an 8-hour time-weighted average.

1910.1028(c)(2) Short-term exposure limit (STEL). The employer shall assure that no employee is exposed to an airborne concentration of benzene in excess of five (5) ppm as averaged over any 15 minute period.

1910.1028(e)(2) Initial monitoring. 1910.1028(e)(2)(i) Each employer who has a place of employment covered under paragraph (a)(1) of this section shall monitor each of these workplaces and work operations to determine accurately the airborne concentrations of benzene to which employees may be exposed.

Condition Found: The inventory provided by the Chemistry Department Chemical Hygiene Officer contains 2 pints of Benzene. The change in use location, or changes to labs after return, will affect ventilation and employee exposures, and other conditions of use.

Corrective Action Order: a. The Chancellor shall require the Biology Department to conduct an inventory or review their inventory for the presence of benzene.

b. The Chancellor shall require the Chemical Hygiene Officers and employees in the Safety and Risk Management office to review the standard, compare it to conditions, tasks and exposures at UW Stout and comply with those parts that are required.

c. The Chancellor shall require the above people to provide a report of their actions and results that he shall review for completeness prior to submitting it to the Department of Commerce for abatement of this violation.

23. Code Section Violated: 1910.1025(a) Scope and application. 1910.1025(a)(1) This section applies to all occupational exposure to lead, except as provided in paragraph (a)(2).

1910.1025(a)(2) This section does not apply to the construction industry or to agricultural operations covered by 29 CFR Part 1928.

1910.1025(b) Definitions.

"Action level" means employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air (30 ug/m³) averaged over an 8-hour period.

"Lead" means metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.

1910.1025(c) Permissible exposure limit (PEL).

1910.1025(c)(1) The employer shall assure that no employee is exposed to lead at concentrations greater than fifty micrograms per cubic meter of air (50 ug/m³) averaged over an 8-hour period.

1910.1025(d) Exposure monitoring - 1910.1025(d)(1) General.

1910.1025(d)(1)(i) For the purposes of paragraph (d), employee exposure is that exposure which would occur if the employee were not using a respirator.

1910.1025(d)(1)(ii) With the exception of monitoring under paragraph (d)(3), the employer shall collect full shift (for at least 7 continuous hours) personal samples including at least one sample for each shift for each job classification in each work area.

Condition Found: The inventory provided by the Chemistry Department Chemical Hygiene Officer contains 22 entries for lead, including 10 pounds of lead metal. The change in use location, or changes to labs after return, will affect ventilation and employee exposures, and other conditions of use.

Corrective Action Order: a. The Chancellor shall require the Biology Department to conduct an inventory or review their inventory for the presence of lead.

b. The Chancellor shall require the Chemical Hygiene Officers and employees in the Safety and Risk Management office to review the standard, compare it to conditions, tasks and exposures at UW Stout and comply with those parts that are required.

c. The Chancellor shall require the above people to provide a report of their actions and results that he shall review for completeness prior to submitting it to the Department of Commerce for abatement of this violation.

24. Code Section Violated: 1910.1450(e)(3) The Chemical Hygiene Plan shall include each of the following elements and shall indicate specific measures that the employer will take to ensure laboratory employee protection;

(e)(3)(i) Standard operating procedures relevant to safety and health considerations to be followed when laboratory work involves the use of hazardous chemicals;

(e)(3)(ii) Criteria that the employer will use to determine and implement control measures to reduce employee exposure to hazardous chemicals including engineering controls, the use of personal protective equipment and hygiene practices; particular attention shall be given to the selection of control measures for chemicals that are known to be extremely hazardous;

(e)(3)(iii) A requirement that fume hoods and other protective equipment are functioning properly and specific measures that shall be taken to ensure proper and adequate performance of such equipment;

(e)(3)(iv) Provisions for employee information and training as prescribed in paragraph (f) of this section;

(e)(3)(v) The circumstances under which a particular laboratory operation, procedure or activity shall require prior approval from the employer or the employer's designee before implementation;

(e)(3)(vi) Provisions for medical consultation and medical examinations in accordance with paragraph (g) of this section;

(e)(3)(vii) Designation of personnel responsible for implementation of the Chemical Hygiene Plan including the assignment of a Chemical Hygiene Officer, and, if appropriate, establishment of a Chemical Hygiene Committee; and

(e)(3)(viii) Provisions for additional employee protection for work with particularly hazardous substances. These include "select carcinogens," reproductive toxins and substances which have a high degree of acute toxicity. Specific consideration shall be given to the following provisions which shall be included where appropriate:

- (e)(3)(viii)(A) Establishment of a designated area;
- (e)(3)(viii)(B) Use of containment devices such as fume hoods or glove boxes;
- (e)(3)(viii)(C) Procedures for safe removal of contaminated waste; and
- (e)(3)(viii)(D) Decontamination procedures.

(e)(4) The employer shall review and evaluate the effectiveness of the Chemical Hygiene Plan at least annually and update it as necessary.

Condition Found: UW Stout permitted the following unsafe conditions to occur during removal of Chemicals, per inventory, that included:

- o flammables,
- o combustibles,
- o corrosives,
- o carcinogens,
- o mutagens,
- o teratogens,
- o neurotoxins
- o 550ml Hydrofluoric acid (“vapor can cause severe burns not always immediately painful or visible but possibly fatal”.)
- o 1.3lbs of phosphorous (“may ignite spontaneously in air”.)
- o 5 Liters of ethyl ether (“forms an explosive mixture at 1.9% concentration in air at temperatures above 49’F”.
- o ethyl ether that would explode on contact with the 8 Liters of nitric acid also being moved out and it is “sensitive to static discharge.”)

These and other hazardous chemicals had to be moved around and through areas congested with other UW Stout employees moving boxes and furniture, “contractors moving construction waste down the elevator. In addition, I saw at least 6-8 different students using the stairwell to move items out of the 4th floor greenhouse and other students working in Biology moving their things on carts using the same elevator. As we got to the first floor with cart loads of chemicals, we had to wheel around contractors on ladders doing work in the ceiling, around UW Stout staff moving boxes into the semi trailer outside, and around wheeled motorized platforms used by contractors.” From the written statement from Chemistry Department Chemical Hygiene Officer. (See Jarvis Hall attachment.)

Gloves provided by the UW Stout Chemistry Department had not been selected based on chemical hazards. Neurotoxins, carcinogens, mutagens, and teratogens were in the inventory but the Plan did not contain a description of establishment of designated area or other additional protections. Standard operating procedures were listed as located in Appendix A which was not provided with the Plan.

It was noted that the Chemistry Department Plan started out with what to do if the Plan failed and an emergency response was required.

The UW Stout Biology Department Chemical Hygiene Plan identifies the “Chief Executive Officer, Chancellor, Charles Sorenson (715-232-2441)” as a “Responsible Individuals/Committee’s under the Chemical Hygiene Plan” but does not specify any other UW Stout employee. Lab Tech is a job title in the Plan that is not in the list of Responsible Individuals.

The Biology Chemical Hygiene Plan is concise and has some good general safe work practices but no specific practices for control of hazards beyond them or identification of specific procedures conducted at UW Stout that are not controlled by the general practices.

The Biology Chemical Hygiene Plan Medical consultation and examination section states “It is strongly recommended that each campus designate a locally accessible physician” indicating the Plan has not been fully adapted to the UW Stout workplace.

The annotated Biology Chemical Hygiene Plan will be included in the copy of the report provided to the employee initially in the job title “Hazardous Materials and Asbestos Coordinator”. The Executive Director of

Health and Safety stated in a 9/24/09 email that this person's "duties are still in health and safety but are to assist in hazmat duties, and to work on special projects in safety, including many of the programs you discussed in your visit – chemical hygiene, haz comm., etc."

For the purposes of clarity he shall be referred to as the Hazardous Materials Coordinator for the remainder of this Report.

Also, radioisotope and nanoparticle use are not covered in this Report.

Corrective Action Order: a. The Chancellor shall require the Chemical Hygiene Officers and the Hazardous Materials Coordinator to review the standards, the processes conducted and the safety equipment provided as well as the chemicals used from preparation to waste disposal.
b. The Chancellor shall require the above people to develop written standard operating procedures for groups of chemicals where appropriate and for specific hazards where necessary.
c. The Chancellor shall require the above people to provide a report of their actions and results that he shall review for completeness prior to submitting it to the Department of Commerce for abatement of this violation.

[Suggestion: Chemistry department: try using the beginning of your Plan to develop standard operating procedures to prevent the need for emergency procedures as a place to start. Also, review the Biology Plan before starting to work on your Plan. Finally, both Departments should remember that short specific Plans are easier to implement. Do not use this Report as an indication that longer is better, please.]

25. Code Section Violated: Comm 32.35(1) SUBSTITUTIONS. In lieu of 29 CFR 1910.1000 July 1, 1998 edition, an employee's exposure to air contaminants shall be in accordance with the requirements of 29 CFR 1910.1000 July 1992 edition.

Condition Found: Permissible Exposure Limits (PELs) in the Chemistry Department Chemical Hygiene Plan referred to current OSHA PELs on page 1 and in the first paragraph of the Biology Department Plan.

Corrective Action Order: The Chancellor shall ensure that the correct exposure limits replace the incorrect limits in all UW Stout written programs.

The Chancellor shall ensure that employee exposures are compared to the enforceable exposure limits.

Federal OSHA enforces current PELs found on their website, the data for which was gathered and evaluated before 1968. The Wisconsin Department of Commerce enforces the 1992 OSHA PELs, based on data available in 1989. The 1992 PELs can be obtained by writing to Department of Commerce or going to this website: <http://commerce.wi.gov/SB/SB-PublicSectorSafetyProgram.html> and scrolling down to the paragraph with the link to "PELs pdf format." Correct this information in the programs.

26. Code Section Violated: Comm 32.24(6) VENTILATION FOR LABORATORY FUME HOODS
(6)(a) *General.* 1. Except as provided in para (b) laboratory fume hoods during use shall be operated with a minimum average 100 feet per minute face velocity at full open sash or sash stop position. When determining the minimum flow rate through the fume hood, the sash stop position may not be lower than 18 inches above the work surface.

Comm 32.24 - ANNOT. Note: When operating the fume hood, the sash should be positioned to maximize the protection to the user.

(6)(a)2. Vertical sash fume hoods operated at sash stop positions shall have an alarm that gives a warning when the sash is raised above the sash stop position. Combination vertical/horizontal sash fume hoods shall have an alarm that gives a warning when the sash is vertically raised from the fully lowered position.

(6)(c) Testing. Operable fume hoods shall be tested annually for minimum face velocity.

Conditions Found: The Chemistry Chemical Hygiene Plan states on page three that the hood face velocity should be between 80-120fpm. The Biology Department's Plan states velocity must be at least 100fpm.

The Chemistry Department Chair's temporary lab had a hood stuffed with equipment so that it could not be used for chemicals such as Carbon Disulfide.

Carbon Disulfide's MSDS states that it is a highly flammable, volatile liquid with a low flash point, a wide explosive range and an extremely low autoignition temperature. It releases toxic Carbon Monoxide and Sulfur Dioxide when burning and is sensitive to static discharge.

Corrective Action Order: The Chancellor shall ensure that all UW Stout employees are trained to properly utilize engineering controls and that such usage is enforced.

The Chancellor shall ensure that the Chemical Hygiene Officers develop and implement a testing schedule with recordkeeping as part of the Chemical Hygiene Plan.

27. Code Section Violated: 1910.1450(e)(3)(vii) Designation of personnel responsible for implementation of the Chemical Hygiene Plan including the assignment of a Chemical Hygiene Officer, and, if appropriate, establishment of a Chemical Hygiene Committee;

"Chemical Hygiene Officer" means an employee who is designated by the employer, and who is qualified by training or experience, to provide technical guidance in the development and implementation of the provisions of the Chemical Hygiene Plan. This definition is not intended to place limitations on the position description or job classification that the designated individual shall hold within the employer's organizational structure.

Condition Found: The Chemistry Department Chemical Hygiene Officer was efficient and knowledgeable about her lab, chemicals, and assigned duties. This was clear from the fact that she and other UW Stout employees managed to move highly hazardous chemicals through a demolition zone without creating a fatal toxic cloud or explosion. (See Events at Jarvis Hall)

However, that such a highly hazardous activity was conducted indicates either a lack of appreciation for the level of hazard or a lack of authority to require a clear and unoccupied path for the transport.

While the Department of Chemistry Chair stated that he would back her up as needed he, also, did not require safe conditions for the hazardous chemical transport. He also operated a temporary lab with poor safe work practices, insufficient PPE, and a hood stuffed to the edge precluding it's use as an engineering control. Indicating a lack of appreciation for the level of hazard of the chemicals he was using in the lab.

The Chemical Hygiene Officer did not receive the training in OSHA standards required to identify or comply with applicable OSHA standards and Wisconsin Comms.

When asked what the Chemistry Department Chemical Hygiene Officer could do if a researcher asked for benzene but refused to follow the expanded standard's requirements she stated that she could not prevent access to the chemical. The interview indicated that, while the Chemical Hygiene Officer can inform UW Stout Chemistry Department employees, including faculty, of the required safe work practices, she has no power to enforce them.

Corrective Action Order: The Chancellor shall ensure that

- a. any UW Stout employee appointed to the Chemical Hygiene Officer position is provided with the training, time, and authority to implementation of the Chemical Hygiene Plan.
- b. the Plan shall contain a system of enforcement to ensure that all UW Stout employees included in the Chemical Hygiene Plan comply with applicable OSHA standards.
- c. a reporting system is set up so that employees refusing to comply with the requirements of the Chemical Hygiene Plan that will ultimately reach the Chancellor who shall take steps to ensure compliance.
- d. any other work project at UW Stout that will impact the Chemistry and Biology Department's safe use of chemicals shall require the Chemical Hygiene Officers be included in the planning stages and alterations or advancement of the schedule of work shall not be permitted without their approval.
- e. documentation of the above is sent to the Department of Commerce to abate this Order.

28. Code Section Violated: Comm 32.32 (2) Cr. Register, February, 1999, No.518. eff. 3-1-99 Incompatible Materials. Incompatible materials shall be segregated to prevent accidental contact with each other that may result in fire, explosion or toxic gas emission.

1910.1450 (f) (4)(i)(C) An employer must train the employee in measures they can use to protect themselves, such as appropriate work practices. This would include proper storage of chemicals so that they do not create a hazard.



Condition Found: The Department of Chemistry Chair's temporary lab was inspected and solvents and acids were stored together.



Corrective Action Order: Read MSDS's for information on reactivity and stability for proper storage conditions. Guidance for storage of incompatible materials can be obtained in publications from the National Fire Protection Association, such as NFPA 49 and 491M.

29. Code Section Violated: 1910.1450(f) Employee information and training.

(f)(1) The employer shall provide employees with information and training to ensure that they are apprised of the hazards of chemicals present in their work area.

(f)(2) Such information shall be provided at the time of an employee's initial assignment to a work area where hazardous chemicals are present and prior to assignments involving new exposure situations. The frequency of refresher information and training shall be determined by the employer.

(f)(3) *Information.* Employees shall be informed of:

- (i) The contents of this standard and its appendices which shall be made available to employees;
- (ii) the location and availability of the employer's Chemical Hygiene Plan;

(iv) Signs and symptoms associated with exposures to hazardous chemicals used in the laboratory;
and

(v) The location and availability of known reference material on the hazards, safe handling, storage and disposal of hazardous chemicals found in the laboratory including, but not limited to, Material Safety Data Sheets received from the chemical supplier.

(f)(4) Training.

(f)(4)(i) Employee training shall include:

(i)(A) Methods and observations that may be used to detect the presence or release of a hazardous chemical (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);

(i)(B) The physical and health hazards of chemicals in the work area; and

(i)(C) The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.

(f)(4)(ii) The employee shall be trained on the applicable details of the employer's written Chemical Hygiene Plan.

(Note: (f)(3)(iii) regarding awareness of current OSHA PELs was removed due to substitution of 1992 PELs as referred to in another Order.)

Condition Found: The Chemical Hygiene Officer stated that the training was conducted for student employees and teaching assistants but did not include other people covered under this standard, such as researchers and professors. The temporary laboratory used by the Chemistry Department Chair and other information demonstrated the following unsafe work practices:



- Improper glove selection when
- Incompatible chemical storage
- Unsafe chemical storage, chemicals
- Improperly contained mercury barometers that created a spill in the hazardous waste temporary storage room



- Transport of hazardous chemicals through a demolition zone
- Misuse of the hood for storage
- Unidentified chemicals in burettes left on wheeled carts
- Unattended and unlabeled chemical solutions left on stir plates with heat capability

Corrective Action Order: The Chancellor shall ensure that all UW Stout employees covered under this standard receive, understand, and implement the training.

Note: The Biology Chemical Hygiene Plan includes custodians in their training, an excellent work practice only arrived at after violations and Reports at other UWs.

30. Code Section Violated: 1910.22 General Requirements. (a) Housekeeping. (1) All places of employment, passage ways, storerooms, and service rooms shall be kept clean and orderly and in a sanitary condition. (2) The floor of every workroom shall be maintained in a clean and, so far as possible, a dry condition. Where wet processes are used, drainage shall be maintained, and false floors, platforms, mats, or other dry standing places should be provided where practicable.

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Condition Found: The room the Department of Chemistry Chair utilized for his lab had walkways crowded with boxes and carts and stored materials making walking hazardous and walking with chemicals extremely hazardous.

Corrective Action Order: The Chancellor shall ensure that all UW Stout work areas are kept clean and orderly, whether temporary or permanent.

The Chancellor shall discover why the hazardous condition was not identified.

The Chancellor shall ensure all employees are trained and comply with this standard.

31. Code Section Violated: 1910.145(a) These specifications apply to the design, application, and use of signs or symbols (as included in paragraphs (c) through (e) of this section) intended to indicate and, insofar as possible, to define specific hazards of a nature such that failure to designate them may lead to accidental injury to workers or the public, or both, or to property damage. These specifications are intended to cover all safety signs except those designed for streets, highways, railroads, and marine regulations. These specifications do not apply to plant bulletin boards or to safety posters.

(c)(2) Caution signs. (c)(2)(i) Caution signs shall be used only to warn against potential hazards or to caution against unsafe practices.

Condition Found: The room used as a temporary lab by the Department of Chemistry Chair did not have a caution sign warning people of the new chemical hazards in the room. The Biology Department's Chemical Hygiene Plan requires signs but does not include all of the above required information.

Corrective Action Order: The Chancellor and Chemical Hygiene Officers shall read the above standard and develop a sign that shall be posted outside the door where work with hazardous chemicals is carried out or where the chemicals are stored.

32. Code Section Violated: 1910.134(c)(1) In any workplace where respirators are necessary to protect the health of the employee or whenever respirators are required by the employer, the employer shall establish and implement a written respiratory protection program with worksite-specific procedures. The program shall be updated as necessary to reflect those changes in workplace conditions that affect respirator use.

Conditions Found: While two UW Stout employee used of half mask respirators during asbestos abatement activities and the Project Liaison directed an employee to wear a powered air purifying respirator the Respiratory Protection Program provided by the Director of Safety and Risk Services did not include:

- one job title,
- one respiratory hazard,
- one specific type of respirator used at UW Stout.

The Program contained such statements as "The employer shall then select enough models and sizes for the user to utilize." and "The employer shall provide to the medical professional".

The only worksite specific information in the UW Stout Respiratory Protection Program was the use of "University of Wisconsin – Stout" name on the title page and "UW – Stout" in two places in the first paragraph on the first page.

Corrective Action Required: The Chancellor shall ensure that no employee is required or voluntarily uses a respirator until

- a. The Respiratory Protection Program contains the required worksite specific procedures.
- b. The Program has been evaluated and found to be in compliance with this standard by the Department of Commerce.
- c. The Program has been fully implemented
- d. The employees have been trained in the new Program.

32. Code Section Violated: 1910.134(e) Medical evaluation. Using a respirator may place a physiological burden on an employee that varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. Accordingly, this paragraph specifies the minimum requirements for medical evaluation that employers must implement to determine the employee's ability to use a respirator.

1910.134(e)(1) General. The employer shall provide a medical evaluation to determine the employee's ability to use a respirator, before the employee is fit tested or required to use the respirator in the workplace. The employer may discontinue an employee's medical evaluations when the employee is no longer required to use a respirator.

Conditions Found: 9/16/09 email from the new Asbestos Coordinator "I have completed my asbestos inspector certification."

9/21/09 email from the Department of Commerce to the new Asbestos Coordinator "Please provide the date of your medical clearance, training, and fit test for respirators as well as the type of respirator you use when sampling suspected asbestos as required by the Asbestos Coordinator job description A. 1."

9/25/09 reply email from the new Asbestos Coordinator "All of this is pending. If we need to sample something that is potentially friable, or requires destructive methods, we will use consultants."

DHS 159.12 Initial and refresher training requirements. (1) ACCREDITED TRAINING REQUIREMENT. Only training certificates from courses with accreditation from the department, listed as accredited in the U.S. EPA's National Directory of AHERA Accredited Courses, or confirmed as accredited by a state approved by EPA to administer an asbestos accreditation program under 40 CFR Part 763, Appendix C to Subpart E, at the time the course was delivered, shall be accepted as proof of completing required training.

40 CFR part 763, subpart E, Appendix C Asbestos Model Accreditation Plan B. Initial Training 3. Inspector requires individual respirator fit testing.

DHS 159.12 (2) WISCONSIN TRAINING REQUIREMENT. The most recent training the applicant completes for certification in a discipline shall be a department-accredited initial or refresher training course that is held in Wisconsin. Training is not complete until all of the following requirements are met:
(a) The applicant attends the entire course, completes all course requirements and passes the course test.

10/23/09 phone interview: the Director of Sales and Marketing for Training Division for the company where the new Asbestos Coordinator attained his certification stated that fit testing and wearing a respirator is part of the training.

Corrective Action Order: The Chancellor shall ensure that the Respiratory Protection Program Administrator is aware of the above requirement of the standard and that employees without medical clearance, as required by the standard, are not sent to courses requiring respirator use.

The Chancellor shall ensure that all employees provided or required to wear respirators at UW Stout receive the medical clearance as required by the standard.

33. Code Section Violated: 1910.134(c)(3) The employer shall designate a program administrator who is qualified by appropriate training or experience that is commensurate with the complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluations of program effectiveness.

Condition Found: The Respiratory Protection Program did not require a Program Administrator or list any UW Stout employee for any task or responsibility. The Director of Safety and Risk Management stated that the Program had been written by a previous employee and that he and this employee had implemented the Program until the other employee left 3 years ago and he continued to implement the Program.

During the three years that the Director of Safety and Risk Management was solely responsible for implementation of the Program he did not identify or correct the lack of specificity and continued to implement a program that did not identify tasks with respiratory hazards or types of respirators required.

The Director of Safety and Risk Management did not ensure that the new Asbestos Coordinator received medical clearance prior to the required fit testing in the asbestos inspector certification course.

Corrective Action Order: The Chancellor shall ensure:

- a. any employee placed in a position or assigned job duties required for compliance with OSHA standards shall be trained and qualified to do so.
- b. the Program Administrator has the competence and authority required for the complexity of the program.
- c. the source of the Program Administrator's failure to ensure employees undergoing a fit test had received medical clearance is identified and corrected.
- d. oversight of employees with responsibility for implementation of the Program to ensure UW Stout meets all requirements of the standard.
- e. Provide documentation to Department of Commerce to verify the above steps have been taken and will continue to be taken as necessary in the future.

34. Code Section Violated: 1910.134(k) Training and information. This paragraph requires the employer to provide effective training to employees who are required to use respirators. The training must be comprehensive, understandable, and recur annually, and more often if necessary. This paragraph also requires the employer to provide the basic information on respirators in Appendix D of this section to employees who wear respirators when not required by this section or by the employer to do so.
- (k)(1) The employer shall ensure that each employee can demonstrate knowledge of at least the following:
- (i) Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator;
 - (ii) What the limitations and capabilities of the respirator are;
 - (iii) How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
 - (iv) How to inspect, put on and remove, use, and check the seals of the respirator;
 - (v) What the procedures are for maintenance and storage of the respirator;

(vi) How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and

(vii) The general requirements of this section.

1910.134(k)(5) Retraining shall be administered annually, and when the following situations occur:

(k)(5)(i) Changes in the workplace or the type of respirator render previous training obsolete;

(k)(5)(ii) Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill; or

(k)(5)(iii) Any other situation arises in which retraining appears necessary to ensure safe respirator use.

Condition Found: The Director of Safety and Risk Management conducted training for employees but had not demonstrated knowledge in the general requirements of the standard. The Safety & Risk Management Safety Training Log for the HVAC Refrigeration Specialist shows that he was trained in "Resp.", "Res.", or "Respiratory" on 3/20/2002, 2/14/2004, 2/9/2005, and 2/21/2006, however this employee, directed to perform Class II abatement work, was not provided with a respirator.

Corrective Action Order: a. The Chancellor shall develop procedures to verify that any employee assigned to train other employees is competent in the material.

b. The Chancellor shall ensure that, after the Program Administrator is trained and the Respiratory Protection Program is developed and implemented, the employees in the Program are trained.

c. The Chancellor shall provide documentation of the above actions to the Department of Commerce.

35. Code Section Violated: 1910.134(l) Program evaluation. This section requires the employer to conduct evaluations of the workplace to ensure that the written respiratory protection program is being properly implemented, and to consult employees to ensure that they are using the respirators properly.

(l)(1) The employer shall conduct evaluations of the workplace as necessary to ensure that the provisions of the current written program are being effectively implemented and that it continues to be effective.

(l)(2) The employer shall regularly consult employees required to use respirators to assess the employees' views on program effectiveness and to identify any problems. Any problems that are identified during this assessment shall be corrected. Factors to be assessed include, but are not limited to:

(l)(2)(i) Respirator fit (including the ability to use the respirator without interfering with effective workplace performance);

(l)(2)(ii) Appropriate respirator selection for the hazards to which the employee is exposed;

(l)(2)(iii) Proper respirator use under the workplace conditions the employee encounters; and

(l)(2)(iv) Proper respirator maintenance.

Condition Found: The Respiratory Protection Program did not include the requirement for an annual Program evaluation. The Program evaluation, if conducted, was not sufficient to identify that the current written program did not contain provisions, such as selection of a respirator for a task conducted at UW Stout by UW Stout employees, which could be implemented.

Corrective Action Order: The Chancellor shall ensure that evaluations are conducted regularly and effectively.

a. The Chancellor shall be provided documentation of the evaluation of sufficient detail to demonstrate that the program is being properly implemented or has been updated as necessary.

b. The Chancellor shall provide copies of the documentation to the Department of Commerce when received from the Program Administrator and after an initial review and comparison to the

requirements of the standard and this Report.

36. Code Section Violated: 1910.1200(a) "Purpose." (a)(1) The purpose of this section is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information concerning their hazards is transmitted to employers and employees. This transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, material safety data sheets and employee training.

Condition Found: The first sentence of the University of Wisconsin – Stout's Hazard Communication Program states "The purpose of this program is to inform interested persons, including employees, that the University of Wisconsin – Stout is complying with the OSHA Hazard Communication Standard" The Program states "The Director of Safety and Risk Management Services is the program coordinator, acting as the Chancellor's representative, who has overall responsibility for the program.

- The Director of Safety and Risk Management stated he did not have the program. The Program states "All employees, or their designated representatives, can obtain further information on this written program, the hazard communication standard, applicable MSDS's and chemical information lists from the Director of Safety and Risk Management Services."

- The Executive Director of Health and Safety stated that only individual departments had these materials.

Corrective Action Order: The Chancellor shall ensure that his designated representative has knowledge of responsibilities assigned to him and that they are carried out.

The Chancellor shall ensure that the purpose of the UW Stout Hazard Communication Program is converted from informing interested parties of compliance to complying with the standard's requirements to evaluate chemical hazards and inform employees.

37. Code Section Violated: 1910.1200(e) "Written hazard communication program."
- (e)(1) Employers shall develop, implement, and maintain at each workplace, a written hazard communication program which at least describes how the criteria specified in paragraphs (f), (g), and (h) of this section for labels and other forms of warning, material safety data sheets, and employee information and training will be met, and which also includes the following:
- (i) A list of the hazardous chemicals known to be present using an identity that is referenced on the appropriate material safety data sheet (the list may be compiled for the workplace as a whole or for individual work areas); and,
 - (ii) The methods the employer will use to inform employees of the hazards of non-routine tasks (for example, the cleaning of reactor vessels), and the hazards associated with chemicals contained in unlabeled pipes in their work areas.
- (e)(2) "Multi-employer workplaces." Employers who produce, use, or store hazardous chemicals at a workplace in such a way that the employees of other employer(s) may be exposed (for example, employees of a construction contractor working on-site) shall additionally ensure that the hazard communication programs developed and implemented under this paragraph (e) include the following:
- (i) The methods the employer will use to provide the other employer(s) on-site access to material safety data sheets for each hazardous chemical the other employer(s)' employees may be exposed to while working;

- (ii) The methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies; and,
 - (iii) The methods the employer will use to inform the other employer(s) of the labeling system used in the workplace.
- (e)(5) Where employees must travel between workplaces during a workshift, i.e., their work is carried out at more than one geographical location, the written hazard communication program may be kept at the primary workplace facility.

Condition Found: When asked the Director of Safety and Risk Management could not produce a list of hazardous chemicals used at UW Stout. The Hazard Communication Program did not contain the procedures required by (e)(1)(ii) and (e)(2).

- Corrective Action Order:
- a. The Chancellor shall ensure that the Hazard Communication Program meets the requirements of the standard.
 - b. The Chancellor shall ensure that the Program is implemented and require annual documentation to verify all aspects of the program are in compliance.
 - c. The Chancellor shall provide a copy of the documentation to the Department of Commerce.

38. Code Section Violated: 1910.1200(f)(5) Except as provided in paragraphs (f)(6) and (f)(7) of this section, the employer shall ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with the following information:

- (i) Identity of the hazardous chemical(s) contained therein; and
- (ii) Appropriate hazard warnings, or alternatively, words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the **physical and health hazards** of the hazardous chemical.

1910.1200(c) Definitions "Hazard warning" means any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the **specific physical and health hazard(s), including target organ effects**, of the chemical(s) in the container(s).

(bold added)

1910.1200(f)(8) The employer shall not remove or deface existing labels on incoming containers of hazardous chemicals, unless the container is immediately marked with the required information.

1910.1200(f)(9) The employer shall ensure that labels or other forms of warning are legible, in English, and prominently displayed on the container, or readily available in the work area throughout each work shift. Employers having employees who speak other languages may add the information in their language to the material presented, as long as the information is presented in English as well.

(Bold added)

Condition Found: The Hazard Communication Program states "The labeling system used on non-original containers follows HMIS/NFPA and DOT warning label standards."

HMIS is an acronym for Hazardous Materials Identification System developed by the National Paint and Coatings Association utilizing colored bars, numbers, and symbols, usually without room for target organ, health effect, or physical effect.

The NFPA is an acronym for National Fire Prevention Association whose labeling system is colored diamonds, numbers, and symbols, usually without room for target organ, health effect, or physical effect.

DOT is an acronym for Department of Transportation and refers to labels required to be on vehicles transporting chemicals.

OSHA is an acronym for Occupational Safety and Health Administration which has specific requirements for the contents of labels that are not met by the NFPA, the DOT, or the HMIS label standards.

The Biology Department's labeling section includes the use of NFPA system as well. The Lab standard has no specific requirements for the contents of labels.

Corrective Action Order: a. The Chancellor shall ensure that his designated representative reads and understands the definition and labeling sections of the standard.

b. The Chancellor shall ensure that the labeling section of the Hazard Communication Program requires the labels to have the **specific physical and health hazard(s), including target organ effects**, of the chemical(s) in the container(s).

c. The Chancellor shall ensure that these requirements are implemented by UW Stout employees.

d. The Chancellor shall provide documentation of the above actions to the Department of Commerce.

39. Code Section Violated: 1910.1020(c) Definitions (c)(5)"Employee exposure record" means a record containing any of the following kinds of information:

(c)(5)(i) Environmental (workplace) monitoring or measuring of a toxic substance or harmful physical agent, including personal, area, grab, wipe, or other form of sampling, as well as related collection and analytical methodologies, calculations, and other background data relevant to interpretation of the results obtained;

(c)(5)(ii) Biological monitoring results which directly assess the absorption of a toxic substance or harmful physical agent by body systems (e.g., the level of a chemical in the blood, urine, breath, hair, fingernails, etc.) but not including results which assess the biological effect of a substance or agent or which assess an employee's use of alcohol or drugs;

(c)(5)(iii) Material safety data sheets indicating that the material may pose a hazard to human health; or

(c)(5)(iv) **In the absence of the above**, a chemical inventory or any other record which reveals where and when used and the identity (e.g., chemical, common, or trade name) of a toxic substance or harmful physical agent.

1910.1020(c)(8) "Exposure" or "exposed" means that an employee is subjected to a toxic substance or harmful physical agent in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.), and includes past exposure and potential (e.g., accidental or possible) exposure, but does not include situations where the employer can demonstrate that the toxic substance or harmful physical agent is not used, handled, stored, generated, or present in the workplace in any manner different from typical non-occupational situations.

1910.1020(d) "Preservation of records." (d)(1) Unless a specific occupational safety and health standard provides a different period of time, each employer shall assure the preservation and retention of records as follows:

(d)(1)(ii) "Employee exposure records." Each employee exposure record shall be preserved and maintained for at least thirty (30) years, except that:

(1)(ii)(A) Background data to environmental (workplace) monitoring or measuring, such as laboratory reports and worksheets, need only be retained for one (1) year so long as the sampling results, the collection methodology (sampling plan), a description of the analytical and mathematical methods used, and a summary of other background data relevant to interpretation of the results obtained, are retained for at least thirty (30) years; and

(1)(ii)(B) Material safety data sheets and paragraph (c)(5)(iv) records concerning the identity of a substance or agent need not be retained for any specified period as long as some record of the identity

(chemical name if known) of the substance or agent, where it was used, and when it was used is retained for at least thirty (30) years(1); and
(1)(ii)(C) Biological monitoring results designated as exposure records by specific occupational safety and health standards shall be preserved and maintained as required by the specific standard.
(d)(1)(iii) "Analyses using exposure or medical records." Each analysis using exposure or medical records shall be preserved and maintained for at least thirty (30) years.

Condition Found: Information regarding record retention for MSDS's or equivalent records were not retained after chemicals were no longer in any UW Stout work area.

Corrective Action Order: The Chancellor shall ensure that a policy is in place so that chemicals no longer in use or present in the department's facilities or vehicles are dated and archived for 30 years. The Chancellor shall ensure that this policy is included in any work area or program related to chemical use.

The Chancellor shall provide documentation of the above to the Department of Commerce.

Note: The standard does not require the statement to be in the written Program but it is easier for day to day compliance to have information readily available rather than requiring employees to remember the requirement for infrequent tasks.

40. Code Section Violated: 1910.1200(h)(1) Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new physical or health hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and material safety data sheets.

(h)(2) "Information." Employees shall be informed of:

- (i) The requirements of this section;
- (ii) Any operations in their work area where hazardous chemicals are present; and,
- (iii) The location and availability of the written hazard communication program, including the required list(s) of hazardous chemicals, and material safety data sheets required by this section.

(h)(3) "Training." Employee training shall include at least:

- (i) Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);
- (ii) The physical and health hazards of the chemicals in the work area;
- (iii) The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and,
- (iv) The details of the hazard communication program developed by the employer, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.

Condition Found: The lack of awareness of the requirements of the Hazard Communication standard demonstrated by misinformation in the Program and the lack of implementation of procedures in the Program demonstrate ineffective training of the Chancellor's representative given overall responsibility for the implementation of the Program.

Corrective Action Order: The Chancellor shall ensure that after his representative is trained in the requirements of the standard the rest of the employees included in the Program are trained.

41. Code Section Violated: 1910.1200(g)(8) The employer shall maintain in the workplace copies of the required material safety data sheets for each hazardous chemical, and shall ensure that they are readily accessible during each work shift to employees when they are in their work area(s). (Electronic access, microfiche, and other alternatives to maintaining paper copies of the material safety data sheets are permitted as long as no barriers to immediate employee access in each workplace are created by such options.)

(g)(9) Where employees must travel between workplaces during a work shift, i.e., their work is carried out at more than one geographical location, the material safety data sheets may be kept at the primary workplace facility. In this situation, the employer shall ensure that employees can immediately obtain the required information in an emergency.

1910.1200(h)(3)(iv) The details of the hazard communication program developed by the employer, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.

1910.1200(a)(1) The purpose of this section is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information concerning their hazards is transmitted to employers and employees. This transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, material safety data sheets and employee training.

Condition Found: The UW Stout Hazard Communication Program states "Alternatives and supplemental information to the MSDS's include: 1. Chemical dictionaries and Merck Index available from the Director of Safety and Risk Management Services. 2. On-line compilation via UW-System @ <http://www.uwsa.edu/outside/oslp/ehs/uwmsds.htm>"

First, the internet address listed brings up "File not found" on UW System web site. A search for MSDS on the site brings up links to laboratory chemical manufacturer web sites, that may or may not manufacture the chemical actually used by UW Stout employees.

Second, the transmittal of information in the purpose section of the standard requires MSDS's, one of the required training topics is an explanation of the MSDS, and the employer shall maintain copies of the required MSDS. Not "alternatives" to an MSDS.

Corrective Action Order: The Chancellor shall ensure that the Hazard Communication Program is in compliance with the standard.

The Chancellor shall verify that all chemicals that fall under this standard used by UW Stout employees have an MSDS that is accessible and meets the requirements of the standard. If an internet address is utilized it shall provide access to MSDS' for chemicals used by UW Stout employees and/or present in UW Stout work areas.

42. Code Section Violated: 1910.1200(b)(3) This section applies to laboratories only as follows:

(b)(3)(i) Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced;

(b)(3)(ii) Employers shall maintain any material safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible during each work shift to laboratory employees when they are in their work areas;

(b)(3)(iii) Employers shall ensure that laboratory employees are provided information and training in accordance with paragraph (h) of this section, except for the location and availability of the written hazard communication program under paragraph (h)(2)(iii) of this section; and,

(b)(3)(iv) Laboratory employers that ship hazardous chemicals are considered to be either a chemical manufacturer or a distributor under this rule, and thus must ensure that any containers of hazardous chemicals leaving the laboratory are labeled in accordance with paragraph (f)(1) of this section, and that a material safety data sheet is provided to distributors and other employers in accordance with paragraphs (g)(6) and (g)(7) of this section.

1910.1450(b) Definitions. **Laboratory use of hazardous chemicals** means handling or use of such chemicals in which all of the following conditions are met:

- (i) Chemical manipulations are carried out on a "laboratory scale;"
- (ii) Multiple chemical procedures or chemicals are used;
- (iii) The procedures involved are not part of a production process, nor in any way simulate a production process; and
- (iv) "Protective laboratory practices and equipment" are available and in common use to minimize the potential for employee exposure to hazardous chemicals.

Condition Found: The Hazard Communication Program states "This program applies to all work operations where employees may be exposed to hazardous substances under normal working conditions or during an emergency situation." and included "Yearly review by the chemical stock room manager of the chemical stockroom inventory." However, laboratory use of chemicals falls under the scope of 1910.1450, Occupational exposure to hazardous chemicals in laboratories.

Corrective Action Order: The Chancellor shall ensure that the Program is corrected and that UW Stout employees are trained in the correct application of the standards.

43. Code Section Violated: 1910.95 (c)(1)The employer shall administer a continuing, effective hearing conservation program, as described in paragraphs (c) through (o) of this section, whenever employee noise exposure levels equal or exceed an 8-hour time-weighted average sound level (TWA) of 85 decibels measured on the A scale (slow response) or equivalently, a dose of fifty percent.

Condition Found: The first page of the Hearing Conservation Program contains the following statements "Safety and Risk Management (SRM) is responsible for the application, oversight, and annual review of the hearing conservation program."

The Program contains a reference to SRM in two other places and the first page also contains "University of Wisconsin – Stout."

Otherwise the Program contains no

- o sound level measurements,
- o job titles,
- o noise dose data,
- o or engineering controls related to UW Stout.

While engineering controls are mentioned in several places there are no sections related to their selection and use.

Corrective Action Order: The Chancellor shall ensure programs written to protect employees from work place exposures contain the specific data and conditions that identify those employees at risk.

The Chancellor shall ensure that an evaluation of the UW Stout noise exposure level is sufficient to identify engineering controls and other methods of reducing employee exposure levels.

The Chancellor shall ensure that this data is included in the Report and provided to the Department of Commerce.

44. Code Section Violated: 1910.95(f) "Observation of monitoring." The employer shall provide affected employees or their representatives with an opportunity to observe any noise measurements conducted pursuant to this section.

Condition Found: The Hearing Conservation Program did not include the requirement to provide employees with an opportunity to observe noise measurements.

Corrective Action Order: The Chancellor shall ensure that the requirement is included in the Plan and employees are provided the opportunity to observe noise monitoring.

45. Code Section Violated: 1910.95(l) "Access to information and training materials."
(l)(1) The employer shall make available to affected employees or their representatives copies of this standard and shall also post a copy in the workplace.

Condition Found: Program did not include provision of copy of standard for employees.

Corrective Action Order: The Chancellor shall ensure that a copy of the standard is posted in the workplace and available to employees.

46. Code Section Violated: 1910.95(m)(2) "Audiometric tests." 1910.95(m)(2)(i) The employer shall retain all employee audiometric test records obtained pursuant to paragraph (g) of this section:
(2)(ii) This record shall include:
(2)(ii)(A) Name and job classification of the employee;
(2)(ii)(B) Date of the audiogram;
(2)(ii)(C) The examiner's name;
(2)(ii)(D) Date of the last acoustic or exhaustive calibration of the audiometer; and
(2)(ii)(E) Employee's most recent noise exposure assessment.
(2)(ii)(F) The employer shall maintain accurate records of the measurements of the background sound pressure levels in audiometric test rooms.

1910.95(m)(3) "Record retention." The employer shall retain records required in this paragraph (m) for at least the following periods.

(m)(3)(i) Noise exposure measurement records shall be retained for two years.

(m)(3)(ii) Audiometric test records shall be retained for the duration of the affected employee's employment.

(m)(4) "Access to records." All records required by this section shall be provided upon request to employees, former employees, representatives designated by the individual employee, and the Assistant Secretary. The provisions of 29 CFR 1910.1020 (a)-(e) and (g)-

(m)(4)(i) apply to access to records under this section

Condition Found: The Hearing Conservation Program did not include the recordkeeping requirements of this standard.

Corrective Action Order: The Chancellor shall ensure that the recordkeeping requirements are included in the Program and implemented.

47. Code Section Violated: 1910.95(d) "Monitoring." 1910.95(d)(1) When information indicates that any employee's exposure may equal or exceed an 8-hour time-weighted average of 85 decibels, the employer shall develop and implement a monitoring program.
- (d)(1)(i) The sampling strategy shall be designed to identify employees for inclusion in the hearing conservation program and to enable the proper selection of hearing protectors.
- (d)(1)(ii) Where circumstances such as high worker mobility, significant variations in sound level, or a significant component of impulse noise make area monitoring generally inappropriate, the employer shall use representative personal sampling to comply with the monitoring requirements of this paragraph unless the employer can show that area sampling produces equivalent results.
- (d)(2)(i) All continuous, intermittent and impulsive sound levels from 80 decibels to 130 decibels shall be integrated into the noise measurements.
- (d)(2)(ii) Instruments used to measure employee noise exposure shall be calibrated to ensure measurement accuracy.
- (d)(3) Monitoring shall be repeated whenever a change in production, process, equipment or controls increases noise exposures to the extent that:
- (d)(3)(i) Additional employees may be exposed at or above the action level; or
- (d)(3)(ii) The attenuation provided by hearing protectors being used by employees may be rendered inadequate to meet the requirements of paragraph (j) of this section.
- 1910.95(j) "Hearing protector attenuation."
- 1910.95(j)(1) The employer shall evaluate hearing protector attenuation for the specific noise environments in which the protector will be used. The employer shall use one of the evaluation methods described in Appendix B: "Methods for Estimating the Adequacy of Hearing Protection Attenuation."
- 1910.95(j)(2) Hearing protectors must attenuate employee exposure at least to an 8-hour time-weighted average of 90 decibels as required by paragraph (b) of this section.

Condition Found: The Hearing Conservation Program stated "The selection of PPE will be based on the attenuation required and the comfort and ease of use by the employee." However, the lack of sampling data precludes the ability to implement the Program and comply with the standard.

Corrective Action Order: The Chancellor shall ensure that noise monitoring is conducted as required by the standard and that the data is included in the Program and utilized for selection of PPE.

48. Code Section Violated: 1910.95(g)(5)(iii) Testing to establish a baseline audiogram shall be preceded by at least 14 hours without exposure to workplace noise. Hearing protectors may be used as a substitute for the requirement that baseline audiograms be preceded by 14 hours without exposure to workplace noise.
- 1910.95(g)(5)(iv) The employer shall notify employees of the need to avoid high levels of non-occupational noise exposure during the 14-hour period immediately preceding the audiometric examination.

Condition Found: The Hearing Conservation Program did not include the requirement to notify the employees that they must avoid high levels of noise for 14 hours prior to the audiogram.

Corrective Action Order: The Chancellor shall ensure that the requirement is included in the program and implemented.

49. Code Section Violated: 1910.1030(c)(1) Blood Borne Pathogens Exposure Control Plan.

(c)(1)(i) Each employer having an employee(s) with occupational exposure as defined by paragraph (b) of this section shall establish a written Exposure Control Plan designed to eliminate or minimize employee exposure.

(d)(2)(i) Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used.

1910.1030(b) Work Practice Controls means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

Condition Found: The Bloodborne Pathogen Exposure Control Plan for the University of Wisconsin – Stout Custodial Services provided contains a much greater level of specificity than previous programs. The Exposure Determination contains job titles and is on the second page. The Purpose statement “The purpose of this exposure control plan is to eliminate or minimize occupational exposure to blood or other potentially infectious material” is excellent. The Plan contains more safe work practices than average plans at this stage of the inspection process, such as “All waste containers will be emptied by removing the container liner. **Never reach** into containers.”

However, other tasks identified, and tasks not identified as having potential for exposure, do not have safe work practices in this Plan.

Corrective Action Order: The Chancellor shall ensure that UW Stout provides engineering and work practice controls that are designed to **eliminate or minimize** UW Stout employee exposure to blood or other potentially infectious materials.

50. Code Section Violated: 1910.1030(c)(1)(iv) The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. The review and update of such plans shall also:

(c)(1)(iv)(A) Reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and

(c)(1)(iv)(B) Document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

1910.1030(b) Sharps with engineered sharps injury protections means a nonneedle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Condition Found: Disposable syringes and needle use was discussed in the Exposure Control Plan without requiring up to date engineering control devices. The Plan refers to DIHLR rather than Department of Commerce indicating that the plan has not been updated, or the update was not complete, for the last 10 years.



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PUBLIC EMPLOYEE OCCUPATIONAL SAFETY & HEALTH INSPECTION REPORT AND ORDERS

Wisconsin Department of Commerce
Safety and Buildings Division
Integrated Services Bureau
P.O. Box 2658
201 W. Washington Ave
Madison, WI 53701

Corrective Action Order: The Chancellor shall

- a. ensure that the Exposure Control Plan is reviewed and updated as required by the standard.
- b. ensure that new technology is considered and implemented where applicable.
- c. provide documentation, initially and annually, of sufficient specificity to demonstrate that this review has taken place.

Cc: Jim Uhlir, Executive Director of Health and Safety/Asbestos Coordinator
John Gast, Local 383 President
Jeff Flatness, (developing programs for
Dan Karamanski, Occupational Safety Manager for UW System

Wisconsin Codes can be found at

<http://www.commerce.state.wi.us/SB/SB-DivCodesListing2002.html>

Wisconsin enforceable employee exposure limits can be found at

<http://commerce.wi.gov/SB/SB-PublicSectorSafetyProgram.html> and scrolling down to item #5.

OSHA standards can be found at

http://www.osha-slc.gov/OshStd_data

Department Order's are issued as a result of an inspection on the above referenced site. You are hereby ordered to have the violations corrected to conform to the indicated provisions of the Wisconsin Administrative Code and/or Wisconsin Statutes. These violations must be corrected by the compliance date noted, and upon correction of violations, I must be notified. If you fail to comply, this order is enforceable in circuit court pursuant to s. 101.02(13), Stats, with forfeitures ranging from \$10-\$100 per day for each violation. If you have any questions regarding this matter, please feel free to contact me at the number listed.

Ch. 101.02(6)(e) stats. Any employer or other person interested either because of ownership in or occupation of any property affected by any such order, or otherwise, may petition for a hearing on the reasonableness of any order of the department in the manner provided in this subchapter.

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