

 <b>Albemarle County Public Schools</b>		 <b>Subject: Crane and Hoist Safety</b>			
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## 1.0 PURPOSE

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The purpose of the Crane and Hoist Safety Program is to provide a safe environment for all individuals and subsequently provide information and training to all individuals that will allow the safe use of any crane or hoist as regulated under OSHA - 29 CFR 1926.550 - Cranes and Derricks.

## 2.0 DEFINITIONS<sup>1</sup>

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A *crane* is a machine for lifting and lowering a load and moving it horizontally, with the hoisting mechanism an integral part. Cranes whether fixed or mobile are driven manually or by power.

A *hoist* is an apparatus which may be a part of a crane, exerting a force for lifting or lowering.

*Hoist chain* means the load bearing chain in a hoist.

*Overhead crane* means a crane with a movable bridge carrying a movable or fixed hoisting mechanism and traveling on an overhead fixed runway structure.

## 3.0 PROCEDURES

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### **Responsibility:**

#### **Safety Manager**

Training shall be conducted prior to job assignment. The Safety Manager shall provide training to ensure that the purpose, function, and proper use of cranes is understood by employees and that the knowledge and skills required for the safe application and usage is acquired by employees. The training shall minimally include the following:

- Preoperational inspection requirements of the crane to be used
- Specific operational requirements of the crane to be used
- Principles of crane operations
- Recognition of applicable hazards associated with the work to be completed
- Load determination and balancing requirements
- Procedures for removal of a crane from service
- All other employees whose work operations may be in an area where cranes may be utilized, shall be instructed to an awareness level concerning hazards associated with cranes

Refresher training will be conducted on an annual basis or when the following conditions are met, which ever event occurs sooner.

- Retraining will be provided for all authorized and affected employees whenever (and prior to) there being a change in their job assignments, a change in the type of crane used, equipment being lifted, lifting procedures, or when a known hazard is added to the lifting environment.

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<sup>1</sup> 29 CFR 1910.179

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- Additional retraining shall also be conducted whenever a periodic inspection reveals, or whenever this employer has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of crane procedures.

### **Crane Operators:**

BEFORE AND DURING USE OF ANY CRANE OR HOIST, the following safe practices shall be observed:

- Ensure cranes are not loaded in excess of their rated capacities
- Keep employees clear of loads about to be lifted and suspended loads
- Keep suspended loads clear of all obstructions
- Lockout before maintenance or repairing cranes
- Position the hook directly over the load before lifting
- Test brakes, if applicable, by a short lift to ensure control
- Before being lifted, loads will be checked for proper balance
- Hands must not be placed between the suspension means and the load during lifting
- Know where you're going to set the load down
- Never allow riders on loads or hooks

### **PRE-OPERATION CHECKLIST:**

- ✓ Check for air or hydraulic fluid leakage
- ✓ Check for load capacity stenciling on both sides of unit
- ✓ Check for twisted, broken or kinked cables or chains
- ✓ Check the operation of the crane controls & movement
- ✓ Inspect for deformed, cracked or stretched hooks
- ✓ Inspect for serviceable safety latches
- ✓ Observe correct drum spooling as the hook is raised
- ✓ Visually inspect all units for integrity, leaks etc
- ✓ Review the manufacturer's specific requirements

### **ESTIMATING WEIGHT OF LOADS:**

Lifting will not be conducted until load weights have been determined. When estimating load weights operators will stay within 50% of the cranes rated capacity when estimating loads (or manufacturer recommendation). Never attempt a load lift based solely on a guess. The following methods may be used to estimate the weight of loads.

- Check equipment nomenclature plates
- Check shipping papers
- Consult with the equipment manufacturer
- Estimate weight using weights of similar loads
- Use industry standard tables or charts



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**Recordkeeping:**

Crane and hoist training records and inspection reports are maintained by the Environmental Compliance Manager at Building Services.

**Crane Inventory**

The following inventory is for the cranes at the Vehicular Maintenance Facility and Building Services.

<b>Crane ID</b>	<b>Crane Number</b>	<b>Rated Capacity</b>	<b>Inspection Date</b>	<b>Inspector</b>
VMF Bay Hoist	VMF-01	465 lbs	March 9, 2007	Segars Engineering
VMF Truck Crane	VMF-02	2000 lbs	September 2007	Manufacturer-Liftmore
Building Services Snow Melter Hoist	BLD-01	1500 lbs	July 10, 2007	Segars Engineering
Building Services Truck 2030 Crane	BLD-02	1000 lbs	November 2007	Manufacturer-Northern Industrial Tools Pickup Truck Crane