



UNC
ENVIRONMENT,
HEALTH & SAFETY

Job Safety Analysis

Safety Information for The University of North Carolina at Chapel Hill

JOB SAFETY ANALYSIS TOPIC:

Motor Removal



Title	Work Task	Hazards	Controls
Preplan the work	Gather proper tools (motor hoist and cart to wheel out motor) Gather necessary parts to complete job (replacement motor if needed) Inform building that a system will be down for a specified amount of time Gather Proper PPE for the job and inspect it	Improper tools No parts or improper parts Improper PPE inspection	Using improper tools or parts can lead to ergonomic issues that can lead to injury Not having the correct parts can delay the completion of a job Improper PPE use and inspection can lead to unnecessary hazards created by wrong PPE or faulty PPE

Removing the motor	Ensure all tools and parts are ready to be installed and any prep work is done	Improper tool use	Wrong tools will prolong a job or encourage improper tool use that can lead to injury
	Shut off any power to the motor to prevent any live work incidents or injuries	Improper lifting techniques	
	Loosen all bolts attached to the motor and have hoist ready to lift off the equipment	Drop hazards	Do not carry motors over a certain size to avoid ergonomic issues. This will also help prevent dropping hazards since the hoist should do the work
	Lower the motor onto a dolly or cart (some mode of transportation)	Pinch points	Avoid placing hands and fingers under the motor when placing it onto the cart or dolly

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Title	Work Task	Hazards	Controls
Placing new motor (if necessary)	Use the hoist to set the new motor in place and begin to tighten down bolts	Improper tool use	Wrong tools will prolong a job or encourage improper tool use that can lead to injury
	Once the motor is stabilized, remove the hoist from it and tighten down motor to proper specifications	Improper lifting techniques	
	Once everything is in place, safely power the motor back on to test its function and ensure it runs properly	Drop hazards	Do not carry motors over a certain size to avoid ergonomic issues. This will also help prevent dropping hazards since the hoist should do the work
		Pinch Points	Avoid placing hands and fingers under the new motor when putting it in place
Clean Up	Take the old motor back to its proper place to be disposed of safely or fixed and use as a back up	Improper lifting techniques	Do not carry motors over a certain size to avoid ergonomic issues. This will also help prevent dropping hazards since the hoist should do the work
		Drop hazards	

	Clean the site to ensure ME rooms stay clean (bring out PPE and tools) Clean and store PPE properly	Pinch Points	Avoid placing hands and fingers under the motor when taking it to the proper disposal area or back to the shop for repair
Training	Employees must have hands on training in the proper use of this piece of equipment.	Supervisor is to fill out the turn in the form to UNC-CH 'Supervisor Led Training Form' and Environment, Health and Safety for documentation of proper training	
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