



ND Paper - Biron Contractor's

Environmental Health & Safety Handbook

ND Paper
621 N. Biron Dr., Wisconsin Rapids, WI 54494

Revised: November 2020

Biron Mill Emergency Numbers:

To:	Dialed from inside	Outside Line/ Mobile
Report an Emergency	22354	715-422-2345
Get Emergency Info	22222	715-422-2222

What to Report:

- Fire
- Medical Emergency
- Chemical Spill/Release
- Confined Space Rescue

Identify:

- Your name and phone number
- Specific Location (Mill/Building/Door Number)
- Type and Nature of Emergency

Environmental Health & Safety Contact Numbers

Biron Mill

- EHS Specialist (W)715-422-2285 (C) 715-323-7735

Contractor General Environmental, Health, and Safety Reminders

Before coming on site:

- Have all of your employees completed the ND Paper Contractor training test?

Once on site:

- Who is your ND Paper representative for the job you are working?
- What is their phone number?
- Who is responsible for accounting for your employees following an emergency evacuation?
- Where will you assemble if an evacuation is called?
- Have you reviewed your Pre-Job Safety Plan with your employees before performing any work?

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I. Introduction

1. Purpose of Manual

The purpose of this manual is to ensure that Contractors are in compliance with all applicable environmental, health and safety rules and regulations while performing work for ND Paper Corporation. The rules and requirements contained in this manual are designed to ensure the safety and health of the Contractors and Company employees, as well as to protect Company property. Compliance with these rules and all company programs, is required as part of the company's agreement with the contractor.

2. ND Paper Policies/Procedures

- It is the Contractor's responsibility to become thoroughly familiar with all applicable rules and regulations as well as ND Paper's environmental policies and procedures as expressed in this manual.
- Contractors are required to complete and document an orientation prior to commencement of any work. The scope of the work project will be reviewed so that specific environmental concerns can be addressed.
- The manual serves as only a guide or reference. Contractors are to become familiar with and comply with all applicable state and federal regulations in the performance of their work. ND Paper has written policies and procedures which will be made available at the time of the orientation. Compliance with these policies and procedures is required as part of the company's agreement with the Contractor.
- The Owner's Representative will inspect the Contractor's work area as appropriate. If any problems are noted, it will be the Contractor's responsibility to take action promptly to rectify any problems.

3. Rules, Codes and Regulations

These rules and requirements are supplementary to federal and state rules. In the case of conflict, the stricter rule, code or regulation shall apply.

4. Definitions

A. Contractor:

Any non ND Paper company and/or personnel who agree to furnish materials and/or services on site.

B. Owner's Representative (O/R):

The Owner's Representative will be assigned by the Mill Project Manager, and is the primary mill contact related to a specific project or outside service being provided to ND Paper. The O/R will work with the facility safety and environmental representative as needed to ensure safety and environmental issues are addressed. S/he may or may not be the individual for initiating the project. The O/R may delegate duties but is ultimately responsible for compliance with the activities described in this handbook.

C. Competent Person:

One who is capable of identifying existing and predictable hazards in the surroundings or work conditions, which are unsanitary, hazardous, or dangerous to employees, and has the authority to take prompt corrective measures to eliminate them.

D. Qualified Person:

One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.

II. Environmental Policies and Procedures

1. SARA Title III Emergency Planning and Community "Right-to-Know" Act

Prior to commencement of work, all Contractors will provide SDSs (Safety Data Sheets) and an estimate of quantities for all materials that will be brought on site. All unused materials will be removed from the site by the Contractor.

2. Chemical Storage

The Owner's Representative will advise Contractors of designated storage areas for materials brought on site.

- The Owner's Representative is to be informed if there are any special storage requirements (e.g., keep from freezing, keep out of direct sun, etc.)
- All chemical storage areas utilized by the Contractor are to be maintained in a neat and orderly fashion. Aisle ways are to be kept clear. Incompatible materials must not be stored next to each other.
- Original labels are to remain on all materials brought on site. Contractors are to handle/store materials so that the integrity of the original label is maintained (i.e., covering materials on pallets with plastic to prevent environmental exposure).
- If materials are placed in secondary containers, they are to be properly labeled as to contents and other information required by OSHA.

3. Transportation of Hazardous Materials

Transportation of all hazardous materials on ND Paper property is to be done according to Department of Transportation (DOT regulations (49 CFR). Materials are to be transported safely and in a secure fashion to prevent any releases to the environment.

4. Waste

Contractors will review with the Owner's Representative the types of wastes that will be generated as a result of their activities.

Unused/Waste Materials

- All unused materials are to be removed from the site by the Contractor, unless ND Paper owns the unused material
- The Contractor will remove all unused chemicals/hazardous materials from the job site immediately after the job is complete unless ND Paper owns the unused chemicals. Contractors will not receive final payment until all surplus materials are removed.
- No unused/waste materials are to be disposed of on ND Paper property including process and/or storm sewers or dumpsters without prior approval.

Hazardous Waste

- EPA views the Contractor and the Owner as co-generators of any hazardous waste and both parties liable. Contractors will be the "official generator" of any hazardous waste generated at any ND Paper facilities unless the ND Paper facility makes other arrangements with the Contractor.
- Hazardous Wastes - Under no circumstances should the Contractor dispose of hazardous waste on ND Paper property.
- The Contractor will ensure that hazardous wastes are stored in DOT-approved containers and they are properly closed and labeled.
- Hazardous wastes are to be stored in the mill's hazardous waste storage area until disposal. The Contractor will be responsible for all testing, disposal arrangements, manifesting, submittal of any reports and maintaining paperwork associated with the wastes.
- Contractors in Wisconsin can follow the WDNR guidance titled "Planning Your Demolition or Renovation Project" (DNR Publication WA 651-2013).

Empty Drum and Container

- Empty Drum and Container Policy - All empty drums and containers are to be removed from the site by the Contractor and disposed of properly.

General Trash/Recyclables

- General Trash/Recyclables - Contractors can use designated ND Paper containers for general trash and recyclables. The Owner's Representative will review the location of general trash containers and those for recyclables. Recyclables include aluminum cans, glass bottles, some plastics, steel cans, and paper/cardboard.
- Recyclables such as batteries, waste lamps and bulbs, electronics or used oil are not to be disposed of in the general trash. Proper recycling of these materials is the responsibility of the Contractor.
- If there are any questions regarding the suitability of materials for recycling or general trash, the Owner's Representative should be consulted. Materials for general trash must be nonhazardous and contain no free liquids.

Demolition & Construction Materials

- Demolition and Construction Materials - Clean demolition and construction wastes as defined by relevant state statutes and regulations may be disposed of in an area designated by the Company or provided by the Contractor.
- The area does not need to be licensed but must be operated in a nuisance-free aesthetic manner. Other demolition and construction wastes must be disposed of in a licensed landfill.

Scrap Metal

- The Contractor must utilize ND Paper's scrap metal hoppers for disposal. The Owner's Representative will review the location of the scrap metal hoppers closest to the job site. The types of metals and/or metal containing materials that are appropriate for each hopper will be reviewed with the Contractor. Scrap metal that can be recycled is not to be placed in the general trash.
- As appropriate, metals will be screened for Naturally Occurring Radioactive Material (NORM) by ND Paper prior to disposal.

Open Burning

- No open burning will be permitted on ND Paper property.

5. Environmental Permits

- ND Paper has air permits with the DNR which can impact Contractor activity. In general, any work on combustion equipment such as boilers or gas-fired dryers may be impacted by the mill's air permit. Before performing any work on combustion equipment, see the Owner's Representative.
- Contractors must complete all work as stated in construction plans submitted to the regulatory agencies (i.e., no deviations in construction materials or equipment without prior approval from the EHS Specialist).
- Any construction activities which disturb one or more acres of land require a storm water permit. See section 10 for more information.
- Permit Compliance - Contractors must adhere to all permits. Failure to do so will result in suspension of work. Willfully violating any permit will result in reassessment of the agreement with the Contractor to do the work and will be cause for dismissal.
- Questions Regarding Permits - Questions regarding the permit shall either be directed to the mill's environmental contact.

6. Asbestos

- The Owner's Representative will review with the Contractor the location of any asbestos-containing materials in the work area. Contractors, unless licensed asbestos removal firms hired by ND Paper for that purpose, are not to remove any asbestos-containing materials.
- If during a project, the Contractor comes in contact with a material which he suspects may contain asbestos, the Owner's Representative will arrange for a certified inspector to take samples for testing and oversee work activities in the area. Depending on the circumstances, work in the area suspected of containing asbestos may need to be suspended until test results are received and a course of action determined.
- Contractors will work carefully so as not to disturb asbestos-containing materials. If any asbestos-containing materials are damaged, the Contractor will immediately notify the environmental contact and/or safety supervisor.
- If asbestos-containing materials need to be removed for a project, ND Paper personnel will hire an outside licensed asbestos removal firm to perform the work.

7. Spill Reporting

- Contractors are to review with the Owner's Representative procedures to be followed in the case of a spill. This will include spill reporting and immediate actions. State and federal laws require the reporting of spills and releases.
- External drains are color-coded to depict the discharge destination (i.e., red to surface water, yellow to process sewer and blue is sanitary).
- Spill Prevention - It is the Contractor's responsibility to take appropriate measures to prevent spills from occurring. Contractors are to carry spill control materials with them (e.g., various absorbents, shovels, drums, etc.) and be knowledgeable in their use.
- Spill Occurrence - In the event of a spill, the Contractor must immediately call the mill emergency number. Contractors must take immediate action to control and mitigate the effects of any spill, including evacuation of an area if necessary. Any actions taken by Contractors in response to spills must be consistent with state and federal regulations.
- Cleanup-Disposal - Contractors will be responsible for all cleanup and disposal of spill residues caused by them or their negligence. ND Paper will supervise the disposal activity to ensure that it is done properly.

8. Supplied Fuel Tanks

- Contractors will be encouraged not to bring fuel tanks on ND Paper property. If it becomes necessary to bring fuel tanks on-site, pre-approval must be received by the Owner's Representative. The Owner's Representative will inform the EHS Specialist of the size, location and tank style.
- Approval must be obtained from the Owner's Representative before bringing any fuel tank (other than five-gallon or smaller safety cans) on site. All tanks must meet the UL142 standard and be double-wall construction. Collision protection must be provided and tank usage and placement must comply with all regulations and applicable fire codes.
- The Contractor will assume all liability for any releases or other damage associated with the supplied fuel tanks.

9. Control of Storm Water Runoff

- If one or more acres of land are disturbed, a storm water plan and permit will be required. The Owner's Representative will review with the Contractor the "Construction Site Erosion Control and Storm Water Management Plan."
- Contractors will be responsible for implementation of the "Construction Site Erosion Control and Storm Water Management Plan." A copy of the plan will be maintained at the construction site.
- Contractors will inspect the site as required by the plan.

10. Excavations

Excavation Permits and Diggers Hotline

- Underground Utilities and Pipeline Diggers' Hotline must be contacted to determine the location of any underground utilities or pipelines prior to beginning any excavation work. Diggers Hotline's phone number is 1-800-242-8511. The Owners Representative will also complete an ND Paper Excavation Permit for projects which occur at the Biron Mill

Water Removal

- Contractors will comply with any permits required for the pumping and discharge of water removed from an excavation. ND Paper personnel will be responsible for obtaining such permits.

Soil Borings

- Contractors will make sure that all bore holes are properly filled after soil borings are collected.

Contamination

- Any contamination found during an excavation must immediately be reported via the mill emergency number. Work should be suspended until ND Paper personnel can determine appropriate action to be taken. Work shall not be reinitiated without the approval of the mill environmental contact.

Underground Tanks

- Current Status of Underground Tanks - ND Paper believes that it has removed all underground tanks from its properties. However, there is always the possibility that underground tanks still exist of which ND Paper is not aware. All Contractors involved in excavation work should be aware of this policy so as to properly respond if an underground tank is encountered.
- Underground Tank Notification Procedures - Should a Contractor encounter an underground tank the following procedures should be followed:
 1. Immediately stop all work in the vicinity of the tank. Work should not be re-initiated without the approval of the mill's environmental contact.
 2. Contractor shall immediately notify the Owner's Representative. If this person cannot be reached, call the mill EHS Specialist.
 3. Tank Removal and Site Assessment/Remedial Action - The removal of all underground tanks, and the performance of site assessments and remedial action are the responsibility of ND Paper. (Also see Excavation topic in the Safety and Health section.)

11. Nuisance Dust

Contractors will minimize the generation of fugitive dust as the result of their activities. Contractors will comply with the applicable state air regulations concerning fugitive dust. Actions which may be appropriate include:

- Watering down a dusty roadway.
- Installation and use of fans, hoods, and air-cleaning devices where dusty materials are handled.
- Covering or securing materials likely to become airborne while being moved.

12. Noise

During construction, Contractors are to conduct their activities in a way to minimize noise. Contractors are expected to comply with any local noise ordinances in effect at the construction site. (Also see Hearing Protection topic in Safety and Health section.)

13. Pesticide/Herbicide Application

The Contractor is to furnish Purchasing with a copy of the certificate(s) documenting that the Contractor is a certified and licensed applicator in the state(s) where the work is to be performed.

14. Lead-based Paint

All lead abatement projects will be audited. No lead-based paints are to be used/applied at any ND Paper facilities.

The Contractor must indicate if their project will require them to disturb any painted surfaces. The Owner's Representative will determine if any lead-based paint will be impacted. Testing of the painted surfaces may be required and will be arranged by the Owner's Representative.

Contractors may complete incidental lead removal work of short duration provided they receive prior approval from the Owner's Representative, have been trained to complete the lead removal activities, and properly manage dust and waste generated from the project.

III. Safety & Health

Safety Overview

1. Safety Responsibilities

Mill Responsibility for Safety

As stated in ND Paper's Policy on Safety and Health, "Management personnel shall be held accountable and responsible for safety and health training, safe work conduct, and safe working conditions. It is the responsibility of each supervisor to ensure that safe work procedures and rules are adequately established and maintained." This statement means that all ND Paper supervisors are accountable and responsible for all safety activities on all ND Paper Projects.

Supervisor's Responsibility for Safety

ND Paper, and contractor supervisors, are responsible for all safety activities within their area. This includes ensuring the safety and health of employees in their work area, protecting property in their area from accidental losses, ensuring employees work practices, in their area, comply with all applicable safety and health laws and regulations, ensuring that employees, in their area, receive proper training to do their job and do it safely, protecting the public and the environment, continuously demonstrating a personal concern for employees' well-being through setting examples, observing and correcting unsafe work practices and hazardous conditions, and consistently enforcing documented safety policies and procedures.

Individual Responsibility for Safety

The Contractor will see that each of his/her employees is aware that they, (the employee), are personally responsible for their own safety, as well as the safety of his/her fellow employees and others in the work area. All employees have the responsibility to: perform work in a manner that will ensure their own personal safety, protect all ND Paper property from damage, understand their jobs thoroughly, including safe use, handling, and storage of tools, equipment, and material, proper use and maintenance of personal protective equipment and safety devices related to their job, maintain their work area in a clean and orderly manner, and to follow the rules, policies, and procedures applicable to their jobs.

2. Emergency Plan of Action

Each employee is expected to know the location of all exits from the area where they are working. In the event of a serious fire, gas release or similar emergency, they are to meet at a location identified when calling the emergency information number 715-422-2222 to take a head count and receive further instruction. In the event of a severe weather alert, shelter areas have been designated. The location of these areas and the specific alarm system for the facility will be shared during the on-site orientation.

3. First Aid/Medical Procedures

Each individual contractor will be responsible to provide emergency first aid for their employees. All injuries, no matter how minor, must be reported to the contractor and must receive first aid treatment. The facility will assist the contractor with injuries in an emergency situation. The contractor shall provide a written report of all injuries and illnesses to the O/R and the Mill Safety Specialist.

4. Alcohol and Drug Policy

No alcoholic beverages or illegal drugs are to be brought onto company property, nor is anyone to be allowed to report to work while under the influence of drugs or alcohol. ND Paper will not attempt to dictate subcontractor drug testing program but will expect that a comprehensive pre-employment and for-cause drug-testing program including both alcohol and controlled substances are established.

5. Incident/Accident Investigation

The Contractor shall thoroughly investigate all accidents/incidents that resulted in an injury to one of its employees, as well as, near-miss situations that could have resulted in a serious accident or injury to employees. This information will be communicated to the O/R and the Mill Safety Specialist.

6. Fire Prevention

Hot Work and Red Tag

Fire prevention and fire protection measures must be employed by all ND Paper and contractor personnel working on ND Paper projects. All of the contractor's employees must be familiar with the location and use of fire extinguishing equipment and alarms to be used in case of an emergency. The contractor will follow all ND Paper's Hot Work and Red Tag Permit requirements.

Flammable and Combustible Liquids

Flammable and combustible liquids brought onto ND Paper projects must be stored in an approved safe container, which are properly labeled and color coded to identify the contents. The O/R and/or Mill EHS Specialist must approve the quantity, use, and storage of these chemicals. **SDS's must be available on site.**

There is no smoking allowed at any ND Paper facility or on ND Paper property, this includes Electronic Cigarettes.

7. Safety Training

It is the responsibility of the contractor to assure that the proper safety training for his/her employees is updated and documented as per local, state and federal regulations. Contractor shall be required to certify that all of its employees have been informed of all ND Paper's safety guidelines, policies and procedures.

8. Access to Records

As mandated in OSHA CFR 29 1910.1200 Hazard Communication Standard, ND Paper has the right to request and receive any information as it pertains to these standards. ND Paper and contractors will share hazard information as required under the "Multi-Employer Workplace" section of these standards.

Personal Protective Equipment

Any PPE changes will need to be addressed in writing to the O/R and/or Mill Safety Specialist. If changes are made they will need to be approved by the Director of Safety, Health and Risk Management or his/her designated representative.

9. Safety Eye Wear Policy

ANSI approved eye protection is required to be worn on all ND Paper projects at all times. The contractor will provide nonprescription safety glasses with side shields or approved safety glasses to be worn over prescription eyewear.

Safety eyewear worn by the contractor employees must meet specifications set forth in ANSI Z87.1. All safety glasses are required to have permanently secured side shields.

ANSI Z87.1 standards. Safety glasses must be worn at all times; exceptions exist as specified by mill manager (from turn-style to turn-style)

When operations present potential eye or face injury, goggles or a full-face shield must be over safety glasses. Examples: grinding, chipping or similar operations.

When the employee is exposed to chemicals, dusts or radiation, additional personal protective equipment may be required by the standards.

10. Foot Protection Policy

Safety-toed footwear, meeting ANSI Z41 with a class 75 rating, are required as a condition of employment on ND Paper projects. Safety-toed footwear will be worn 100% of the time.

11. Hard Hat Policy

All employees and visitors on any ND Paper construction projects are required to wear hard hats that meet OSHA/ANSI specifications of Z89.1. Hard hats will be worn 100% of the time.

12. Hearing Protection

All employees of the contractor, who are working in designated "hearing protection required" areas, must wear hearing protection. There may be other areas where noise levels exceed 85dB, or where conditions present a potential hazard to the employees' hearing, where hearing protection is required. The contractor is responsible for ensuring that this equipment is worn. (Also see the Noise topic in the Environmental section)

13. Respiratory Protection

The contractor shall have a respiratory program that meets the requirements set forth in OSHA CFR 29 1910.134, "Respiratory Protection." Some of the ND Paper facilities will have designated areas that require employees of contractors be clean-shaven where the respirator fits the face. It is the contractor's responsibility to assure that the respiratory requirements of these ND Paper facilities are followed.

14. Hand and Arm Protection

The contractor shall require employees to use a minimum ANSI Cut Level 4 appropriate hand protection when the employees' hands are exposed to hazards such as those from skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, puncture, chemical burns, thermal burns, electrical hazards, or harmful temperature extremes.

Cut level 4 Sleeves shall be worn when working with an open blade knife, metal bands, wires, doctor blades, coater blades, slitters and chipper knives.

15. Working Over or Near Water

Life jackets are to be worn by any employees of the contractor who are working on or around dams, water treatment facilities, lagoons, and other areas where the danger of drowning exists. Life buoys shall be provided with at least 90 feet of line, no further than 200 feet from the employee. At least one lifesaving skiff shall be immediately available at locations where employees are working over or adjacent to water.

The contractor is responsible for furnishing these personal protective devices to their employees. If severe circumstances exist, body positioning with a harness and tether may be required.

Personal Work Environment

16. Housekeeping

All work and storage areas shall be kept clean to the extent that the nature of the work allows. Cleanups shall be made on a daily basis and all tools, materials, and debris shall be kept out of walkways (i.e., hoses and cords should be properly stored when not in use; exposed nails shall be removed or bent over immediately).

Plastic contamination causes severe operating problems on blade coaters. All plastic waste materials must be disposed of in proper trash containers.

All lines, electrical, hoses, etc., which cross a walkway shall be either elevated or protected in such a manner that they will not be damaged by traffic.

Fire-fighting equipment, fire doors, chemical showers, electrical racks, and other emergency equipment must not be blocked. All electrical racks and electrical breaker panels shall be closed or covered at the end of each shift and 3 feet of clearance must be maintained. All spills of oil, water, or any other slippery substance shall be cleaned up immediately and any necessary material applied to the floor to leave it in a non-slippery condition.

17. Personal Conduct

All contractor personnel are expected to conduct themselves in a professional and business-like manner. Horseplay, practical jokes, and physical threats will not be tolerated on ND Paper projects. All employees of the contractor are expected to stay within their authorized work area. No one will be allowed to wander onto or go on any other company property for any purpose without the specific permission of the project or Mill Safety Representative.

18. Illumination

The contractor is responsible for providing his/her employees with adequate lighting to ensure safe working visibility. The contractor will supply any special equipment needed for this purpose.

19. Ventilation

The contractor is responsible for seeing that adequate ventilation is maintained, in and around, the work area at all times. The contractor must supply any special equipment needed for this purpose.

20. Sanitation

Portable water and toilet facilities will be provided for construction projects. These facilities must be used for the intended purposes in a proper manner. The contractor's employees will help in maintaining these facilities in a clean and operating order.

22. Hazard Communication

The purpose of the hazard communication standard is to ensure that the hazards associated with chemicals being produced or imported are evaluated. That information must be shared with all potentially exposed employees. This transfer of information is to be accomplished by means of a comprehensive hazard communication program, container labeling and other forms of warning, material safety data sheets, and employee training.

The contractor will obtain and furnish to the O/R, Mill EHS Specialist, and/or the Mill Environmental Representative, an SDS for each and every chemical substance or product identified as a health or physical hazard that the contractor, or any subcontractor, intends to use on company property. SDS sheets must be made mutually available on multi-employer work sites. The contractor will also ensure that containers of such chemicals or products are properly labeled as to name and potential hazard.

The O/R and/or Mill EHS Specialist will provide the contractor with a list of hazardous chemicals to which the contractor's employees may be exposed, along with a copy of the SDS for each product. The contractor will relay this information to his/her employees or to any subcontractors for dissemination. (Also see SARA Title III topic in the Environmental section.)

23. Radiation Gauge Awareness

This section applies to all contractors whose employees may be required to work near radioactive sources in use at ND Paper.

ND Paper uses measuring gauges at its facilities containing radioactive materials. These gauges emit low levels of ionizing radiation. As a safety precaution, all contract employees are required to stay at least six feet away from any gauges bearing the radiation hazard symbol. If there are radioactive sources in the area of a contractor's work, ND Paper will complete a walkthrough with the contractor's management representative to identify such sources, and they will be conspicuously marked. Marking will be similar to the symbol below.



Contractor employees shall be aware that work on radioactive material of any kind is prohibited, unless specifically authorized by a ND Paper Radiation Safety Officer. Radioactive sources are not to be temporarily moved, removed, or tampered with in any manner. Unauthorized work or disturbance of radioactive sources will lead to immediate removal from ND Paper property and the project.

Contractor employees are requested to report any unusual circumstances or unauthorized actions related to radioactive gauges or radioactive material observed by the undersigned are to be reported to the ND Paper Project Manager, Mill Radiation Safety Officer, or other ND Paper management employee immediately.

If the project involves removal, dismantling, or rebuilding of equipment contractor employees should be familiar with the ND Paper color coding system. His system is used to identify the physical extent of work projects and the presence of radioactive gauges.

If you have questions or are unsure about anything related to radioactive gauges, do not guess - ask for clarification.

Equipment

24. Ladders

All of the contractor's ladders shall meet the ANSI standards, "safety requirements for portable, reinforced plastic ladders," shall have an extra heavy-duty, type IA (300 lb. rating), be equipped with safety feet, and meet all other normal safety standards regarding condition and features.

Portable metal ladders shall not be used on ND Paper properties.

Ladders shall be inspected by the user prior to each use and maintained in a safe condition.

A competent person, on a quarterly basis, shall inspect contractor ladders, and documentation maintained. Ladders shall be placed at the proper angle and shall be placed to prevent slipping, or it shall be lashed and secured in position. In no instance shall a ladder be used in a horizontal position.

The contractor will see that each of their employees receives adequate instructions on the proper methods of climbing and utilizing ladders. The contractor shall see that the ladders are collected and stored properly when not in use.

25. Scaffolding

All contractor scaffolding shall be capable of supporting, without failure, its own weight plus at least four times the maximum intended load. They shall be erected on a sound, rigid footing, capable of carrying the maximum intended load without settling or displacement.

Scaffolding shall be designed by a qualified person and erected under the supervision of a competent person. Erection crews shall inspect each component part for defects. Defective parts shall be taken out of service. Uprights shall bear on-base plates and mudsills, or other adequate firm foundations.

All working platforms shall be fully planked, with scaffold-grade planking; the gaps between planks shall not exceed 1 inch. Planks shall be free of defects and shall extend over the supports no less than 6 inches, unless cleated, or no more than 12 inches. When overlapping planks, they must overlap at least 12 inches.

Guardrails, mid-rails, and toe boards will be installed on all open sides and ends of platforms more than 6 feet above the ground or floor. "X" bracing can serve as either a guardrail or midrails, depending upon the height of the crossing members, but never both.

Scaffolds that exceed a 4:1, height to base ratio, shall be restrained from tipping by ties, guys, or bracing. Scaffolds shall be secured at intervals of every 26 feet vertically and 30 feet horizontally.

Mobil scaffolds require all casters to be locked, when in use, with a diagonal brace to prevent racking or collapse. No one shall ride nor allow materials to be stored on the scaffold when it is being moved, towers must be only used on level surfaces and ensure that there are no overhead obstructions or energized electrical lines in the path of travel.

26. Material Hoists and Rigging

Rigging equipment for materials handling shall be inspected prior to each use, or as necessary, to assure that it is safe. Damaged or defected sling shall be removed from service immediately. Rated load capacities recommended operating speeds, and any special hazard warnings or instructions posted on equipment may not be exceeded under any circumstances.

All areas within the swing radius of cranes that are potentially accessible by pedestrians, vehicular, or equipment traffic must be barricaded to prevent anyone or vehicle from being struck by the crane or load being lifted.

Except where electrical distribution and transmission lines have been de-energized, no part of a crane or its load may come within 10 feet of any power line.

Cranes must be inspected before each use, defects corrected prior to use, and a written report must be maintained with that crane on a daily basis.

Rigging equipment, when not in use, shall be removed from the working area so as not to present a hazard to employees.

Makeshift rigging equipment is prohibited.

The contractor shall instruct his/her employees to stay out from under temporarily suspended loads. In addition, the contractor shall take any necessary steps to keep all other people out from under any loads that have been temporarily suspended by employees of the contractor.

27. Welding and Cutting

No welding or cutting shall be performed on company property without the proper hot work permit.

Appropriate fire-fighting equipment is to be supplied by the contractor and be available in close proximity of any welding or cutting operation at all times.

Proper eye protection must be worn during all welding or torching operations.

The contractor shall provide adequate shielding around all welding and grinding work done by his employees.

Storage of Oxygen and Fuel Gasses:

Oxygen cylinders in storage shall be separated from fuel gas cylinders or combustible materials by a distance of 20 feet, or by a non-combustible barrier at least 5 feet tall having a fire-resistance rating of at least 1/2 hour.

All cylinder's valves must be closed when any work is finished and when any cylinders are empty or being moved.

Valve protection caps must be placed and secured properly before compressed-gas cylinders are transported, moved, or stored.

Compressed-gas cylinders must be secured in an upright position with a chain, or other appropriate and approved system, designed for such a purpose at all times.

All cylinders must be kept a safe distance or shielded from welding or cutting operations.

Fuel-gas cylinders shall not be taken into a confined space.

28. Compressed Air

Check hoses and couplings before each use. Only use hoses that are designed to handle compressed air. All hose couplings must have a positive locking device.

Compressed air, used for cleaning purposes, is to be reduced to less than 30 pounds per square inch (psi) when the nozzle end is obstructed or dead-ended. Safety glasses with side shields must be worn during this type of operation.

All hoses exceeding 1/2 inch inside diameter shall have a safety device at the source of supply, or branch line, to reduce pressure in case of hose failure.

The use of compressed air to clean you or co-workers is strictly prohibited.

29. Motor Vehicles and Power Equipment

All vehicles or power equipment is to be checked at the beginning of each shift to ensure that all parts, equipment, and accessories that affect safe operations are in proper operating conditions and free from defects. All defects that affect the safe operation of the vehicle are to be corrected before the vehicle is placed in service. A record of these inspections must be retained.

All motor vehicles and power equipment are to be operated by authorized personnel. The driver has the overall responsibility for the safety of passengers and for the stability of the load.

Drivers must have a valid operator/driver's license to operate any company vehicle.

If a contractor is going to use ND Paper owned equipment a ["Equipment Use and Release of Liability"](#) form must be completed prior to use.

Seat belts must be worn at all times.

Operators are not to use motor equipment having an obstructed view unless:

- The vehicle has an audible reverse signal alarm distinguishable for the surrounding noise level, or a visual strobe light; (may be acceptable in exceptionally noisy area) alarm.
OR
- The vehicle is backed up only when an observer signals that it is safe to do so.

Only trained and licensed operators shall be permitted to operate a power industrial truck. Industrial trucks shall be maintained free of debris accumulation.

No one other than the operator shall be allowed on power industrial trucks or motorized equipment unless the equipment is designed for multiple users.

Never leave a motor vehicle running and unattended. A vehicle would be considered to be attended, if it is in view and the operator is within 25 feet of the operator's station. The brake must be set and any attachments lowered when vehicle is unattended.

Shut off motor to refuel.

Smoking and open flames are not allowed when refueling or charging batteries.

Drivers are to remain clear of the cab of any vehicle that is being loaded or unloaded by power equipment. (Exceptions: When a vehicle is equipped with the proper cab shield or canopy adequate to protect the operator should materials shift or fall.)

Passengers are not allowed to ride in the back of pickup trucks and flat beds.

30. Power tools:

Fuel-Powered Tools

- All fuel-powered tools must be shut off while being refueled, serviced, or maintained.
- Smoking, matches, open lights, or similar ignition sources are prohibited in the vicinity of any refueling operation.
- Any fuel-powered tool that develops a leak in the fuel system must be taken out of service immediately and repaired or replaced before continuing the operation.
- When fuel-powered tools must be operated indoors or in confined areas, or near occupied underground pits, manholes, vaults, etc. proper ventilation of such confined spaces must be maintained so as not to allow a hazardous atmosphere to form.

Electric Tools

- All 110 volt power tools, must either be approved "double insulated," or have a current assured grounding test I.D. Those not meeting one of these requirements must be taken to the shop for testing or replacement before use.
- Cords of power tools are not to be used to lift or lower the tool.

Pneumatic Tools

- Percussion type impact tools must have a safety clip or retainer to prevent the attachment from disengaging while in use.
- Compressed air in excess of 30 psi shall not be used for cleaning purposes. (Exception: Concrete form cleaning, mill scaling or similar processes being performed by trained personnel.)
- All pressurized hose quick disconnect type (non-threaded) fittings, couplings, and connectors, must have a safety mechanism providing a positive means to prevent accidental disconnect.
- All hose lines greater than 1/2 inch diameter are to be equipped with a safety device at the source, or branch line from the source to automatically reduce pressure in case of hose failure.
- Hoses are not to be used for lifting and lowering air tools.

Powder-Actuated Tools

Only persons trained in the proper use of the particular powder-actuated tool are permitted to operate it.

- The tool must never be pointed at another person whether it is empty or loaded.
- The tool must only be loaded just prior to its use and never left unattended when loaded.
- The tool must never be used near flammable or explosive materials or atmosphere.
- Fasteners must never be driven into extremely hard or brittle materials, such as cast iron, glazed tile, face-hardened steel, glass block, face brick, etc.
- Fasteners must never be driven into materials that might be easily penetrated unless suitably protected against the possibility of rear exit.

Grinders - Abrasive

- Abrasive wheel bench or stand grinders must have safety guards strong enough to withstand bursting wheels.
- Adjust work rests on grinders to a clearance not to exceed 1/8 inch between rest and wheel surface. The distance from the top of the wheel to the wheel periphery guard or the tongue guard shall not exceed 1/4 inch.
- Inspect and ring test abrasive wheels before mounting. Always leave wheel in working condition for next user. Properly dress wheel before using and/or when finished.
- The RPM rating of the abrasive wheel must be in accordance with the RPM rating of the motor.

Grinders - Portable (air, electric or fuel)

- Portable grinders used with any wheel attachment must have guards, hoods, and/or safety flanges in place except when wheels less than 2 inch OD is used or when the wheel is entirely within the work being processed.
- The use of any attachment wheel rated lower than the rate RPMs of the grinder is strictly prohibited.
- Hand Grinders must have dead-man's switch and a brake

31. Aerial Lifts

Know your aerial platform. Read and understand the manufacturer's operating manual before using the machine.

All operators must be trained and receive proper instructions before operating aerial platforms. During the use of boom-supported elevated work platforms, the employee is to wear a full body harness and a lanyard affixed to the attachment point in the basket.

Before you begin your workday, you must inspect your machines and complete a written inspection report detailing all deficiencies. Do not operate until all defects that effect the safe operation are corrected.

Check the work area for holes, obstacles, drop-offs or rough spots. Look for weak spots or covers on ramps or floors. Look for oil spills, wet spots, slippery surfaces, soft soil, and standing water.

Clear away trash and debris. Pick up anything that might puncture a tire. Make sure aisles, ramps, doorways, and passages are clear.

Check for overhead hazards. Assume all electrical parts and wiring are ENERGIZED and stay back at least 10 feet from electrical hazards.

Do not travel in the extended position, except for equipment that is specifically designed for this type of operation.

If operating in elevated position, the operator shall:

- Maintain a clear view of the path of travel.
- Maintain safe distance from obstacles, debris, drop-offs, holes, depressions, ramps, and other hazards to ensure safe elevated travel.
- Maintain a safe distance from overhead obstacles.

Never use ladders, planks, steps or other devices to provide additional reach to gain greater height.

Do not lean over, sit or climb on the platform railing. Keep both feet on the platform floor at all times.

Never tie off to an adjacent structure when working from an aerial platform.

In the event the individual must leave the work platform to perform the work, he/she shall be tied off to the structure by means of a body harness and lanyard prior to exiting the work platform.

32. Material Handling

Physical differences make it impossible to establish safe lifting limits applicable to all workers. Before workers lift any heavy objects or bulky loads and carry it to another location, they should inspect the route over which they will move the object. By doing this walk, the employee can make sure that there are no obstacles or spill that could cause them to slip or trip.

When attempting to lift:

Plan a route that is free from tripping and slipping hazards. Know where the object will be unloaded and plan "rest stops" along the way.

Examine the object, determine its weight, and look for sharp edges.

Follow these simple lift procedures:

- STAND as close to the load as possible, feet spread apart.
- BEND at the knees, keeping your back straight and stomach tucked in.
- GRASP the load firmly. Use gloves if object has sharp or jagged edges.
- LIFT smoothly with your legs.
- HOLD the load close to the center of your body.

Avoid twisting your body. If you must change your direction, move your feet instead.

Get help with heavy and/or bulky materials to avoid dropping the load or getting thrown off balance.

If the load is too heavy, get help. Have just one person give commands when team-lifting big loads. Utilize mechanical equipment when feasible.

33. Excavation and Trenching

Prior to excavation, contractors must obtain an excavation permit from the division.

Prior to excavation with power equipment, all utilities must be located by hand excavation to ensure that no employee is exposed to any hazards and that no disruption of service will occur.

Preplanning of every excavation by the responsible supervisor is required in order to prevent problems with items such as underground utilities, vehicular and pedestrian traffic, overhead utility lines, surface drainage, substructures and superstructures, excessive noise laws, environmental impact laws, medical and/or emergency response facilities, potential for hazardous atmosphere, communications and back-up availability, and normal amounts of vibration in the area.

Dewatering, as required to sustain a dry excavation, must be initiated and maintained while work is being performed.

Persons working in or around an excavation must be alert to any unnatural or suspicious changes in the excavation. Any observation, or concern, must be reported to their immediate supervisor immediately. Such concerns may include cracks in walls or surface, water seepage, suspicious odors, change in surrounding vibrations, incoming drainage, etc.

Prior to starting any work in the excavation area, the immediate supervisor, or designated competent person, shall inspect the excavation for possible hazards and to see that all safety regulations are met. Additional inspections will be made throughout the day as required by changing conditions and at the beginning of each new workday or work shift. Each inspection is to be documented by the designated competent person using the appropriate company form. Completed forms must be turned in to the Safety Department on a regular basis.

The immediate supervisor/competent person must remain in the general vicinity of any excavation in which persons are working. Should the designated competent person find it necessary to leave, they must designate a qualified person as competent person. This designee must have a working knowledge of the trenching and excavation regulation, be able to identify existing and potential hazards associated with the operation and have authority to take immediate corrective measures.

Should no such person be available, work within the excavation must be halted until the competent person returns.

Once an excavation exceeds 5 feet in depth, protective systems such as sloping, shoring or shielding must be provided in accordance with the type of soils present on the project.

At the end of the work shift or when the work area must be left unattended at any time, the immediate supervisor shall perform a walk-around inspection of the area assuring that no hazardous or unsafe conditions are left exposed or unprotected.

Where a condition exists that vehicular traffic poses a potential hazard to persons working in or around an excavation, adequate barricades, signage, earthen berms, signalmen, barriers, etc. must be provided that would best control the hazard. (Also see Excavations topic in the Environmental section.)

A registered professional engineer shall design shoring or benching for excavations greater than 20 feet in depth. A registered professional engineer must approve excavations below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees.

All excavations 4 feet or deeper must have a ladder, ramp (earthen or structural), or similar safe means of access/egress within 25 feet of persons working in the excavation.

Ladders used in excavations as access/egress must be secure and must extend at least 3 feet above the top landing area or have an adequate grab rail or grab bar system at the top.

Excavated materials and equipment must be kept at least 2 feet from the edge of any excavation to protect employees from falling debris or a retaining device must be provided.

Earthen ramps must be at no greater incline than that which would allow a person to exit in an upright position.

Structural ramps must have a non-slip walking surface or must be supplied with cleats.

34. Confined-Space Entry

A confined space is defined as follows:

- Large enough that an employee can get inside.
- Has limited or restricted means of entry/exit.
- Is not designed for continuous employee occupancy.

If the space meets all of the criteria listed above, the following factors must be considered. If any of the items below apply, then the confined space is a permit-required confined space.

- Contains, or has the potential to contain, a hazardous atmosphere, or
 - Contains a material which may engulf an entrant, or
 - Has a design which could cause an entrant to become trapped or asphyxiated.
- or
- Contains any other serious safety health hazard.

Typical confined spaces include, but are not limited to, the following:

Pits, Silos, Sewers, Boilers, Manholes, Wells, Ditches, Vaults, Tunnels, Digesters, Pipelines
Machinery Housing Truck & Railroad Tank Cars, Storage Tanks

ND Paper will provide the initial testing for all confined spaces. A ND Paper "Confined Space Permit" (P014-063) will be used to verify the condition of the confined space as it is turned over to the contractor. All subsequent testing and monitoring will be the responsibility of the contractor.

The contractor shall provide all necessary personnel and equipment for the entry, rescue, and monitoring of employees working within a confined space.

Any contractor employee whose work assignment requires him/her to enter any confined space must obtain a "Confined Space Entry Permit" (P014-063) before any such work is started. The employee's immediate supervisor must sign this permit. Issuance of the permit is to assure that the confined space being entered is prepared for a safe entry, that the employees entering the confined space are informed by their supervisor of the safe procedures to follow for working in the confined space, to assure that all power equipment, steam and chemical lines are locked and blinded off, that the air is monitored, and that the tester initialed the results of their tests on the permit form.

All permit-required confined spaces are to be labeled with danger signs, which denies entry without a proper permit, if you are unsure of an unlabeled area reach out to the EHS Specialist

All employees involved in the confined-space entry must first receive training by a competent person.

Assure that proper ventilation and low-voltage lighting is provided as needed.

Life lines and safety harnesses, (life line must be attached to the D-ring located in the center of the back), shall be worn by anyone entering the confined space, with a retrieval end attached to a fixed point outside of the space.

A standby person must remain outside the confined space at all times and in a position to handle the safety line or summon assistance in case of an emergency.

Rescue provisions must be established for each job prior to entry.

At the completion of the entry, the contractor along with the O/R and/or Mill EHS Specialist shall go through a debriefing meeting to evaluate the hazards encountered or created during contractor entry.

35. Electrical

Electric Load Centers

- Only authorized personnel are allowed to enter and/or work in electric load centers. Under no circumstances are electric load centers to be used for a walkway or passageway.
- The contractor shall use either ground-fault circuit interrupters or an assured equipment-grounding conductor program to protect employees on construction sites.

Assured-Grounding Program

- Electrical grounding inspections will be conducted by the contractor periodically for equipment on all jobsites and shop areas, and will be performed by qualified personnel who have been trained in proper procedure.
- Equipment under this program will be inspected quarterly. ND Paper highly recommends that the contractor use color codes of tape to identify equipment that has been inspected and passed for the respective quarters. The colored tape should be placed by the inspector around the cord near the plug end of each piece of equipment passing each periodic inspection according to the following recommended color scheme:

January - March	White (winter)
April - June	Green (spring)
July - September	Red (summer)
October - December	Yellow/Orange (fall)

Ground Fault Circuit Interrupter (GFCI)

- When GFCI's are used on construction projects, they should be located as close as possible to the electrical equipment it is intended to protect.
- GFCI's should be used in all wet areas or other areas that are highly grounded, such as metal tanks.

36. Lockout Procedures

Lockout of energy sources shall be used to ensure that before an employee performs any service or maintenance activities, all potentially hazardous energy shall be tried, isolated, locked out, and retried using the following steps:

Identify all energy sources. The department lockout procedures shall be reviewed with the supervisor responsible for the equipment. A survey shall be made to locate and identify all energy sources by the individual performing the lockout.

Try equipment or know it will run. If the equipment is operating, shut it down by the normal stopping procedure. If it cannot be operated, check with the supervisor responsible for the equipment.

Shut down & control energy sources. Operate the electrical switch, valve or other energy isolation device, so that each energy source is disconnected or isolated. The disconnection or isolation devices must control all electrical, mechanical, chemical, thermal, hydraulic or pneumatic energy.

Relieve, drain, or dissipate stored energy. Stored energy, such as that in batteries, capacitors, static electricity, springs, elevated machine members' "gravity," rotating flywheels, hydraulic systems, air, gas, steam, or vacuum systems, must also be dissipated, drained, or restrained by methods such as grounding, repositioning, blocking, bleeding, recycling, cooling, or neutralizing (i.e., pneumatic systems require double valves and bleed or blind, or disconnect and capping; gravity pins and blocks are required to control gravity. Steam, gas or chemical lines require two valves with a bleed or a valve and blind).

Attachment of locks. Locking out the energy and/or isolating devices, shall be done by each employee working on the device, with their own personal lock; each lock must be identified with employee's name. You should then attempt to activate the locked out device, (lock switch, chained valve, etc.), to make sure it cannot be moved to the "ON" position or opened. Each employee must have exclusive control of the keys for their locks, either kept in their pocket or locked in their locker or toolbox.

Try/attempt to restart the equipment. After ensuring that no personnel are exposed, an attempt will be made to restart the equipment. This process may require production operators to assist.

Restart Verification. A "Restart Verification" tag shall be attached to the lockout device if there is a possibility that others will need to lock out the same equipment at a later time.

The company blue "Restart Verification" tag will be completed, signed, and attached to the energy control device by the first person placing a lock after verification is completed.

No subsequent attempt shall be made to restart the equipment after the initial lockout.

In a situation where an employee is not sure if an attempt was made to restart the equipment, the employee shall contact their supervisor or the Safety Department for further instruction.

The "Restart Verification" tag must remain intact on the lockout device until the last padlock is removed. The tag will then be sent to the department superintendent/team leader and forwarded on by divisional policy.

Removal of Locks. Only the employee may remove his personal lock. Failure to remove their lock will result in being called back in to remove it on their own time.

If the authorized employee that failed to remove their lock cannot be located, their immediate supervisor/team leader will follow procedures established in "ND Paper, Personal Lockout/Lock Removal Form." The immediate supervisor/team leader shall verify the employee cannot be reached, then along with a designee of the facility manager and an employee representative, they may authorize lock removal.

Box Lockout/Group Lockout. The box lockout procedure is desirable on projects that require a large number of locks to control energy sources or on large construction projects that present complicated lockout procedures.

- A representative from each union involved in the work, and the project leader, will place all locks on the isolation devices.
- A blue "Restart Verification" tag will be secured to each equipment isolation device to show the equipment was tied. The bottom portion of the blue tag will be torn off and placed on the box lockout location. The keys will be placed in the lock box.
- The project leader will place their lock on the lock box and keep it there throughout the project.
- Boxes will be identified by equipment name and will list related items to be locked out.
- Each equipment lock will be identified by a special orange-colored danger label stating, "Danger: Box Lockout, do not operate," indicating that this is a group lockout, and prohibiting the operation of the disconnection device. No one will try to run this equipment after the project leader and union representative have completed this procedure.
- All employees who plan to work on this equipment will place their lock on the box.

37. Fall Protection

Fall protection must be provided when employees are working at or above 6 feet. This shall include, but is not limited to, walking/working surfaces with unprotected sides and edges, leading edges, hoist areas, holes, form work, reinforcing steel, ramps, runways, walkways, excavations, dangerous equipment, roofing work, pre-cast concrete erection, and wall openings.

Employees are to be protected from falling by guardrail systems, safety nets, positioning devices, covers, and personal fall arrest systems in accordance with governmental regulations.

Guardrail Systems. The top edge height of the top rails should be 42 inches, plus or minus three inches, above the walking/working surface and must be capable of withstanding a side and top load of 200 pounds.

Midrail, located at half the distance, must be capable of withstanding a side and top load of 150 pounds.

Four-inch toe boards, with 1/4 inch maximum clearance, between working surfaces and bottom of toe board, must be capable of withstanding a side load of 50 pounds.

Guardrails should be designed to protect against punctures and lacerations and to prevent clothing from being snagged.

When cable handrail is used, it must not deflect more than 3 inches in any direction and the top rail must be marked every 6 feet with high visibility markings.

Safety Nets. If safety nets are used, they must be installed as close to the working surface as possible, but in no case more than 30 feet below the working surface.

Where safety nets are used, work shall not begin until the nets have been installed and tested.

Nets shall be capable of withstanding a drop test with a 400-pound weight from the highest walking/working surface at which an employee is exposed to a fall hazard.

When nets are installed within 5 feet of the working surface, they shall extend 8 feet beyond the edge of the work surface. If installed at 5 to 10 feet, they must extend 10 feet beyond the edge of the work surface, and over 10 feet below the work surface, will require the nets to extend 13 feet beyond the edge of the work surface.

Positioning Devices. Positioning devices shall be secured to an anchorage capable of supporting twice the intended load, or 3,000 pounds, whichever is greater.

Positioning devices shall be rigged such that an employee cannot free fall more than 2 feet. Body belts are not allowed by ND Paper.

Covers. Temporary covers are to be used to protect against tripping in or stepping into holes, and they are also used to prevent objects from falling through holes and possibly hitting employees below.

Temporary covers are to be capable of supporting two times the intended load, secured to prevent displacement, and labeled with the word "Hole" or "Cover."

Personal Fall Arrest System. A full-body harness will be required as part of a personal fall-protection system.

Snap hooks shall be of a double-locking type to prevent disengagement.

Lanyards, horizontal and vertical lifelines, and attachment points should have a minimum breaking strength of 5,000 pounds. Lifelines shall be protected against being cut or abraded.

Self-retracting lifelines and lanyards that automatically limit free falls to 2 feet or less must sustain a minimum anchorage point of 3,000 pounds. Devices that do not limit freefall to this distance, must sustain a minimum anchorage point of 5,000 pounds.

Personal fall arrest systems shall limit maximum arresting force on an employee to 1,800 pounds and be positioned such that an employee can neither free fall more than 6 feet nor contact any lower level.

Personal fall arrest systems shall be used for employee protection only, and not to hoist materials.

Personal fall arrest systems shall be inspected prior to each use for wear and/or damage. Deteriorating and defective equipment shall be taken out of service.

Personal fall arrest systems shall not be attached to guardrail systems, unless that guardrail is designed for that purpose.

Decking/Roofing*. *NOTE: Notify the facility safety representative if you intend to use one of the following fall protection systems: "*Warning line systems, Controlled access zones, Fall Protection Plan and Safety Monitor Systems.*"

38. Concrete and Masonry Construction

All concrete reinforcing steel that leaves open ends or otherwise protrudes in a way that leaves a condition where employees could fall and be injured by cutting or impalement on the reinforcing steel bars must have protective devices put in place on the reinforcing steel, or otherwise be guarded to eliminate the hazard of cutting or impalement

Welded wire mesh (or welded wire fabric), is to be placed in a manner that prevents or otherwise is secured from recoiling.

Concrete formwork and shoring is to be designed and constructed in a manner that safely supports all loads imposed during concrete placement. All formwork and shoring is to be designed strictly in accordance with published practices of the formwork manufacturer and performed by qualified personnel. All formwork and shoring components are to be inspected by competent personnel prior to, during, and after erected.

Formwork and shoring are not to be removed until it has been determined through proper testing, that the concrete has gained sufficient strength to support its weight and any superimposed loads and meets all requirements of the project contract documents.

No employee shall be permitted to work under concrete buckets while buckets are being elevated or lowered into position. Riding of concrete buckets is prohibited.

No employee shall be allowed to apply concrete, sand, and water through a pneumatic hose unless that employee is wearing protective head and face protection.

A limited Access Zone (LAZ) is to be established when construction a masonry wall or cast-in-place concrete. The LAZ is to be equal to the height of the wall to be constructed plus 4 feet and run the entire length of the wall. The LAZ is to be established on the side of the wall, which does not contain scaffolding.

39. Steel Erection

Fall protection must be provided when employees are working at or above 6 feet by ND Paper policy.

During the final placing of solid web structural members, the load shall not be released from the hoist line until the members are secured with not less than 2 bolts, or the equivalent at each connection and drawn up wrench tight.

Tag lines shall be used for controlling loads.

When bolting, fitting-up, and plumbing-up operations are being performed, containers shall be provided for storing or carrying bolts and drift pins and secured against falling. When bolts and drift pins are being knocked out, they shall be prevented from falling.

40. Signs, Signals and Barricades

Signs and symbols required by hazardous jobsite conditions are to be visible at all times when work is being performed and are to be removed or covered promptly when the hazards no longer exist.

Danger Signs. Are to be used where immediate hazards exist. Shall have red as the predominant color for the upper panel; black outline on the borders; and white lower panel for additional sign wording.

Caution Signs. Are to be used to warn of potential hazards or to caution against unsafe practices. Shall have yellow as the predominant color; black upper panel and borders; yellow lettering of "Caution" on the black panel, and lower panel for additional sign wording. Black lettering shall be used for additional wording.

Exit Signs. When required, shall be in legible red letters not less than 6 inches high on a white field.

Safety Instruction Signs. When used, shall be white with green upper panel with white letters to convey the principle message. Any additional wording shall be black letters on the white background.

Directional Signs. Other than automotive traffic signs described in No. 6 below, shall be white with a black panel and white directional symbol. Additional wording on the sign shall be black letters on a white background.

Traffic Signs. Construction areas are to be posted with legible traffic signs at points of hazard. All traffic control signs are to conform to American National Standards Institute's "Manual of Uniform Traffic Control Devices for Streets and Highways."

Signal/Warning Lights. The color code for flashing signal lights has been standardized for ND Paper properties. Signs must be posted indicating purpose.

- RED - Red flashing lights denote imminent danger to all personnel, forbid entrance, or trespassing.
- YELLOW - Yellow flashing lights denote caution to all personnel. Denotes potential hazard. Read and follow directions of sign posted indicating hazard or rule.
- BLUE - Blue denotes a process upset or condition.

Barricades. Barricades shall be used in place of caution tape whenever a physical obstruction is required, to prevent people from falling into the hazard or from being accidentally exposed to an immediate hazard or danger. Barricades must withstand a 200-pound force at any point, be 42 inches high, have a midrail, and have danger tags affixed. (Ask yourself what could happen if the lights went out and people were trying to get out of this area.)

Equipment Guard. Equipment guards shall be kept in place while equipment is operating. Temporary guards or roped-off hazardous areas must be tagged and approved by department supervisor. Tags must list hazards; i.e., "Lock out before entry."

41. Demolition

Prior to permitting employees to start demolition projects, an engineering survey shall be made, by a competent person, of the structure to determine the condition of the framing, flooring, walls, and possibility of unplanned collapse of any portion of the structure.

When materials are being dropped from one level to a lower level, the area onto which the material is being dropped shall be completely enclosed by barricades not less than 42 inches high and not less than 6 feet back from the projects edge of the above opening.

All floor openings, not being used as material drops, shall be covered or barricaded with material substantial enough to support the weight of any load that may be imposed.

All electrical, gas, water, steam, sewer, and other services shall be shut off, capped or otherwise controlled.

42. Hazard Identification (Temporary)

Caution Tags. Caution Tags (yellow in color; a black panel with yellow lettering) used to provide information on temporary equipment, temporary process disorders or to identify temporary potential hazards.

Caution tags shall be used to identify switches, valves, or other equipment that is temporarily out of order, undergoing maintenance, must be temporarily operated different than standard or warn against potential hazards.

The employee assigning the caution tag must clearly state the equipment or process disorder or hazards, along with any special instructions, and sign and date the tag.

Caution tags shall only be removed when the equipment or process is put back to standard operating condition. Only the originator or supervision may remove caution tags. Any deviation must have the

express approval of the Mill Manager or his designate. Caution tags must be renewed every quarter (3 months).

Caution Tape. Caution tape (yellow with black lettering) is Tape can be used to cordon off large areas where potential hazards exist.

Caution tape shall never be used without additional tags which specifically describe/ define the hazard involved. Tags must be affixed whenever caution tape is used. A caution tape area can be entered, providing the employee has taken proper precautions as outlined on the tag (i.e., once lockouts or proper protective equipment, etc., is utilized). Caution tape shall never be used in place of a barricade (i.e., to keep people out of an area of imminent danger).

Danger Tags. Danger Tags (red as the predominant color in the upper portion of the panel) Danger tags shall be used only for the purpose of alerting others of situations where an immediate hazard exists. Danger tags shall be used only in these situations and they shall never be used for personal protection.

The employee assigning a danger tag shall clearly state on the tag what the hazard is and sign and date the tag. He/she shall then place the tag in an appropriate place so that other employees who may have intentions of entering the area or using the equipment can easily see the hazard in question. A physical barrier shall be erected immediately after and tagged by the supervisor.

The EHS Specialist must be notified if danger tags are placed. Hazards must be given high priority for repair.

The originator shall be the only person to remove danger tags. Any deviation must have the express approval of the Mill Manager or his designate.

Danger Tape. Danger Tape (red with black lettering) used for cordoning off a major/immediate hazard which presents a threat of danger or serious injury to employees with danger tape for short periods of time is permissible, until physical barriers can be established.

A danger tag to identify the immediate hazard and the originator must accompany danger tape. The owning department shall be notified if a danger tag is placed. Positive actions shall be taken to eliminate the hazard.

Information Tags. Information tags (lime green in color). Information tags will be used to inform people about process or service information where safety is not an issue.

43. Working near Railroad Tracks

Blue Flag

Employees working on or near the tracks shall place a blue flag at the nearest switch down the rail, in the direction from which the switch engine would approach, and the switch will be locked in position to protect the track being occupied. This must be communicated to the switching railroad.

Derails shall be positioned on track by the switch crew upon completion of switching cars and removed by the railroad switch crew before beginning their switching operation. Switch crews will only remove derails when the blue flag has been removed from the track. Derails shall be thrown while cars are being switched at top of tracks and removed only while entering train shed with air connected on all cars. Derails must be locked in derail position.