

**Kerr-McGee Chemical Corp. – Navassa
Superfund Site**

Off-Site Traffic Control Plan

Carl & Son's Construction Company, Inc

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Off-Site Traffic Control Plan

Carl & Sons Construction Co, Inc.-Navassa Superfund Site

1.0 Introduction

Carl & Sons Construction Company, Inc. (Contractor) is the prime contractor enforcing traffic control measures during the OU2 remedial action at the Kerr-McGee Chemical Corp.—Navassa Superfund Site (Site). This Traffic Control Plan presents the means and methods for protection and control of pedestrian and vehicle traffic during construction, operations, parking for offsite workers, and haul routes. This plan addresses any traffic control issues on nearby rights-of-ways in the event of temporary lane closures or if traffic flagmen are needed for trucks entering and leaving the Site, offsite traffic control measures, and any special provisions related to time restrictions on the use of haul route roadway. This plan will be updated as necessary to ensure that construction traffic does not create a safety hazard for local vehicles and residents. This Traffic Control Plan was prepared following the U.S. Department of Transportation Manual on Uniform Traffic Control Devices and in accordance with all applicable NCDOT regulations, County ordinances, Town requirements, and any required permits.

2.0 Off-Site Traffic Control Permitting

All truck drivers and haul trucks moving material from the Site will have current licenses and registrations as required by the North Carolina Department of Transportation (NCDOT). Licenses and registrations are provided in **Attachment A** [*These will be provided to the Owner's Representative 2 weeks prior to mobilization at which time the equipment, drivers and staff will be assigned-designated for the project*] and will be maintained onsite at all times. Advanced notice will be provided by Greenfield Environmental Multistate Trust LLC, Trustee of the Multistate Environmental Response Trust (Multistate), to the Navassa Town Planner, Navassa Town Administrator, Navassa Town Clerk, and Navassa Town Sheriff 14 calendar days prior to the start of construction related activities at the Site. Contractor will copy the Multistate Trust on all communications to the Town of Navassa contacts. All construction traffic activity on public roadways and haul routes within the Site will be limited to the hours allowed by the Town of Navassa.

3.0 Off-Site Traffic Controls

Contractor will control offsite traffic during the implementation of the work using the following:

Standard highway signs warning of and designating work zones, including reduced speed ahead, and road/lane closures as needed in their designated signage locations.

- Cones, barrels, and/or barricades if needed (NCDOT accepted)
- Flagmen for lane closures and/or to assist with equipment/truck access to work areas as needed.

Sufficient signage will be posted to facilitate efficient traffic flow on and offsite. Signs will be posted of the type and at locations shown on **Figure 2 Offsite Haul Route and Traffic Control Signage**. Signs may include but are not limited to “flagman ahead,” “trucks entering the highway ahead,” “slow traffic” and “prepare to stop.”

All trucks will enter and exit the Site from the north entrance located off Quality Drive (**Figure 1. Site Entrance and Traffic Control Signage**), which will be the only egress and entry into the OU2 worksite. None

of the haul and transport vehicles will be allowed on North Navassa Road or Old Mill Road Northeast. Contractor will avoid residential areas and limit disruptions to the community. Spotters or flagmen will be used where trucks must pull out into traffic and to minimize blind spots. Flagmen will be able to satisfactorily demonstrate the following abilities:

- Ability to receive and communicate specific instructions clearly, firmly and courteously using the appropriate equipment such as radios etc.
- Ability to maneuver and move quickly in order to avoid danger from errant vehicles.
- Ability to control signaling devices (such as paddles and flags) in order to provide clear and positive guidance to drivers approaching a Temporary Traffic Control zone in frequently changing situations.
- Ability to understand and apply safe traffic control practices, sometimes in stressful or emergency situations.
- Ability to recognize dangerous traffic situations and warn workers in sufficient time to avoid injury.
- All workers must wear high visibility safety apparel that meets ANSI standards for Class 1, 2, and 3 exposures.

The flagmen are used interchangeably and will be trained on how to work next to motor vehicle traffic in a way that minimizes their vulnerability. They must also exhibit proficiency in applicable NCDOT standard flagging procedures which can be found on the connect.ncdot.gov website.

4.0 Off-Site Haul Routes

Haul routes have been chosen that minimize potential impacts to the surrounding community. All designated haul routes will be communicated in advance to hauling personnel and to the Navassa Town Planner, Navassa Town Administrator, Navassa Town Clerk, and Navassa Town Sheriff. The anticipated offsite disposal facilities are as follows:

Material	Disposal/Recycle Facility	Facility Address
Asbestos Containing Material (ACM)	Sampson County Landfill	7433 Roseboro Hwy Roseboro, NC.
Tires	Brunswick County Landfill	171 Landfill Rd Northeast Bolivia, NC
Rail	Southern Metals Recycling	12 Wright St, Wilmington, NC.
Railroad Ties	Sampson County Landfill	7433 Roseboro Hwy. Roseboro, NC.
Timber	International Paper Company	864 John Riegel Rd Riegelwood NC.
	NC State Ports Authority	Port Terminal 2202 Burnett Blvd Wilmington, NC

	West Fraser Inc.	361 State Rd Riegelwood, NC
Concrete Debris	Pelton Aggregate	3612 US-421 Wilmington, NC 28401
	Brunswick County Landfill	171 Landfill Rd Northeast Bolivia, NC.
	Sampson County Landfill	7434 Roseboro Hwy Roseboro, NC
Used BMPs	Sampson County Landfill	7434 Roseboro Hwy Roseboro, NC.
Trash	Brunswick County Landfill	171 Landfill Rd Northeast Bolivia, NC
Contaminated Soil	Sampson County Landfill	7434 Roseboro Hwy Roseboro, NC

The following import materials will be transported to the site along designated haul routes:

Materials Transported Onsite		
Material	Disposal/Recycle Facility	Facility Address
Common Borrow	421 Sand	5401 US-421 Wilmington, NC 28401
Aggregates	Martin Marietta Materials	211 Sutton Stream Plant Rd Wilmington, NC 28401

Work areas will be accessed via the haul route entrances as depicted on **Figure 1, Site Entrance and Traffic Control Signage**. Haul routes to and from anticipated offsite facilities (disposal, recycling, and import) are provided in **Figure 2 Offsite Haul Route and Traffic Control Signage**. Trucks or equipment bound for the Site from alternate locations must also adhere to the local haul routes designated in **Figure 2**. The anticipated numbers of trucks that will be hauling material to/from site are as follows (some truck loads may be consolidated):

Waste Stream	Truck Type	Truck Capacity	Hauler	Approximate Number of Trucks
Timber	Tractor & Log Trailer	80,000	Keith Wilkins, Jr. 4843 Livingston Chapel Rd. Delco North Carolina 28436	1 - 5

ACM	Roll-off-truck	10 Tons	SR&R	1
Tires	Service Truck	2 Tons	SR&R	1
Rail	Flat Bed or Roll-Off Truck	10 Tons	Yard Runners	1
Railroad Ties	Roll-Off Truck	10 Tons	SR&R	1
Concrete	Dump Trucks	15 Tons	SR&R	23
Used BMPs	Dump Trucks	20 Tons	SR&R	1
Used PPE	Dump Truck	10 Tons	SR&R	1
Trash	Service Truck	2 Tons	SR&R	1
Contaminated Soil	Lined Dump Truck	20 Tons	SR&R	2
Clean Common Borrow	Dump Truck	20 Tons	Yard Runner	190
Clean Aggregate	Dump Truck	20 Tons	Yard Runners	15

5.0 Health and Safety

Transportation of materials to and from the Site will follow health and safety requirements detailed in the Contractor Health and Safety Plan (HASP). All personnel involved with traffic control activities will have read, understood and signed the HASP relevant to the specific tasks. Specific hazards related to traffic control include the following and are further detailed in the HASP:

5.1 Trucking

In order to avoid hazard related to trucking the following procedures will be in place:

- All trucks leaving the site will be labeled with appropriate contact information,
- Provide clear direction to drivers, by using agreed on hand signals and visual aids, such as flags, recognizable by the truckers/drivers,
- Spotters and flagmen to maintain line of sight with the truckers/drivers at all times,
- Separate moving vehicles from workers on foot,
- Use temporary traffic control devices to mark traffic patterns,
- Maintain a smooth traffic flow, by spacing the trucks exiting the site and yielding to non-project traffic-vehicles i.e. commuters, local residents, local commercial traffic.

5.2 Blind Spots

A blind spot (or blind area) is the area around a vehicle or piece of construction equipment that is not visible to the operator (if you cannot see the individual in your mirror the individual cannot see you and

vice versa), either by direct line-of-sight or indirectly by use of internal and external mirrors. Each vehicle has its own, unique blind spots. Operators should be familiar with the blind spots surrounding each piece of equipment he or she operates and should be sensitive to the fact that workers and other objects cannot be seen in certain areas. Blind spots are hazardous because workers on foot often perform tasks near moving equipment and vehicles, or walk by equipment in route to another destination. When they enter a blind spot, the worker on foot is virtually invisible to the operator. Construction equipment is typically large and has an enclosed cab. These characteristics can make the blind areas very large and difficult for the operator to see. Also, the size of construction vehicles and equipment often place truck drivers and equipment operators high above the ground. They cannot see workers on foot crossing close in front of them. Items placed on the dashboard or attached equipment can create even larger blind spots and reduce visibility.

Contractor and their sub-contractors must take the following actions to avoid hazardous blind spots:

- Do not cross directly in front of, immediately behind or in close proximity to large heavy equipment or trucks.
- Crossing in front of large park vehicles or equipment, stay at least 20' from park vehicles or equipment/front or back of them.
- Communicate with an operator (verbally and/or by confirming signal) before entering any area near heavy equipment or large trucks, while using a spotter for additional safety controls.
- If workers are required to be near parked equipment or trucks, stand in front or on operator side, so if equipment comes into use, the operator can see worker and vice versa.

5.3 Off-Site/On-Site Before Driving

- Each vehicle used on Site and/or for project support will go through the daily equipment inspection checklist provided by Contractor.
- Driver shall ensure mirrors are positioned for prop driving visibility before operating the vehicle.
- All vehicles equipped with backup alarms must be checked by Contractor prior to operation to verify they are in proper working condition.

5.4 Off-Site/On Site Parking

- Avoid backing up whenever possible. Evaluate the area to find a route to arrive at your destination using forward driving only.
- Keep the driver's window, and if possible, the passenger window down when backing or driving in the vicinity of pedestrian workers.
- Turn off radio or other distracting devices.
- If the vehicle is to be left in place the driver must engage the mechanical parking brake and/or leave the vehicle in gear so it does not roll out of the parked spot/area.
- Park in a manner that you can leave in a forward motion. Pull straight through when possible. Remember the closest space is not always the best space. Choose a space that is free of congestion.
- Any time vehicle has been stationary for more than 2 seconds, conditions change. Operator should exit and walk around vehicle before moving. *Never trust the scene you checked to stay the same. A person walking three miles-per-hour will travel 9 feet in 2 seconds. A child riding a bike at 10 miles-per-hour will travel 30 feet in 2 seconds.*

5.5 Off-Site/On Site Backing Up

- All drivers and operators must beep horn 2 times before reversing, the universal signal for a vehicle backing up.
- If vehicle is equipped with a backup alarm, it must be working. If it is not working operator is required to fix it. In an emergency, if work must be completed when the alarm stops working operator must use a spotter while in reverse.
- Operator must use all mirrors when backing and always use a spotter. Operator must use agreed upon signals before backing. Always back at an extremely low rate of speed (walking speed) and do not back more than 50-100 feet before stopping and rechecking the area for a clear zone. Evaluate the area for more stringent guidelines in confined areas.

5.6 Off-Site/On Site Securing Loads

Secure cargo requirements prevent cargo from blowing, or falling from any commercial vehicle. Regulations include minimum strength requirements for devices used to secure cargo that prevent cargo from moving and rules for securing specific commodities. Commercial motor vehicles used to transport cargo on public roads, must be loaded and equipped, and their cargo must be secured, according to regulation 49 CFR 393, Subpart I.

Tarp or tarp systems will be used each time a truck is loaded with soil, debris of any kind or gravel, to prevent the material from blowing off the truck box. When commercial motor vehicles are used to transport cargo on public roads, they must be loaded and equipped with the required devices, and their cargo must be secured, according to regulation.

All personnel involved with traffic control activities will have read, understood and signed the Health and Safety Plan (HASP) and Activity Hazard Analysis (AHA) relevant to the specific tasks.

6.0 Spill Prevention and Control

The following spill prevention and control methods for “small spills” less than 6 gallons in volume, will be in place during construction, note that spills larger than 6 gallon in volume will be addressed in the contractor’s project Contingency plan.

Small spills (less than 6 gallons) will be contained using booms and spill berms to prevent oil/fossil fuels from entering storm or sewer drains. Contractor will seal adjacent drain inlets and curb inlets as necessary. Contractor will use spill kits, sorbent pads, and granular oil sorbents for spill cleanup.

Contractor will institute the 5 Cs of spill control as a standard of operations:

1. Control-eliminate the source of the spill
2. Contain-limit the area impacted
3. Comply-assess and report damage to the proper authorities
4. Clean-up restore the affected area.
5. Isolate the area concerned if appropriate.

In the event of a spill Contractor will contact Erick Sepulveda, Owners Representative at 404-376-3573 initially and proceed to inform the proper authorities based on his direction. Brunswick County Office of Emergency Management Number is as follows: 910-253-5383 or 1-800-522-2366.

7.0 Contingency

Contingency actions have been developed for potential unanticipated traffic events, potential unanticipated site conditions, major storm events, and potential life-threatening events (fires, explosions, hazardous material spills) that could adversely affect construction activities and/or pose a risk to workers, the public, and/or the environment. Accidents, emergency situations and release events will be addressed as outlined in the project's HASP and reported in accordance with CERCLA requirements.

8.0 Off-Site Signage Traffic Control

The following signage will be in-place during hauling operation:

Navassa Road NE, SR 1435 – 4500 Linear Feet

- Truck entrance ahead – Yellow or Orange
- Slow traffic – Orange or Yellow
- Prepare to Stop – Orange or Yellow
- Caution - Yellow
- Flagman ahead – Orange or Yellow
- Flagman Stop Sign - Red

Old Mill Road SR SE – 1432 Linear Feet

- Truck entrance ahead – Yellow or Orange
- Slow Traffic – Orange or Yellow
- Flagman ahead – Orange or Yellow
- Caution - Yellow
- Be Prepared to Stop or Prepare to Stop – Orange or Yellow
- Flagman Stop Sign - Red

Quality Drive – 1900 Linear Feet

- Truck entrance ahead – Yellow or Orange
- Flagman ahead – Orange or Yellow
- Be Prepared to Stop or Prepare to Stop – Orange or Yellow
- Flagman Stop Sign - Red

Main Street SR SE – 1432 Linear Feet

- Flagmen ahead - Orange or Yellow
- Truck entrance ahead - Yellow or Orange
- Caution - Yellow or Orange

Signs will be spaced from first flagman five hundred feet reading Stop, next 500 feet Flagman ahead, next 500 feet Be Prepared to stop or Prepare to stop, next 500 feet Slow traffic, next 500 feet Caution, next 500 feet Truck entrance ahead.

Signage will be spaced apart at a distance that drivers will be able to read the signs and properly respond in a timely manner.

9.0 Contacts:

Project Contacts are designated as follows:

- Carl L. Parker Sr. – President – pooker@atmc.net – 910-619-4974
- Carl L. Parker Jr. – Project Manager – park73@gmail.com – 757-332-2178
- Clifford Waddell – Superintendent – cwaddell1968@yahoo.com – 910-409-6109
- Royce Brown – Health and Safety Manager – brownroyce408@gmail.com – 910-617-8527
- Otis Mattson – Assistant Project Manager – peglove00@bellsouth.net – 910-617-1797
- Anne S. Parker - Secretary – aparker1034@gmail.com – 910-612-7041

Attachment and Figures

Attachment A Contractor Licenses and Registrations

Figure 1 Site Entrance and Traffic Control Signage

Figure 2 Offsite Haul Route and Traffic Control Signage

Figure 1 Site Entrance and Traffic Control Signage

Figure 2 Offsite Haul Route and Traffic Control Signage