



Disaster Trailer Deployment Manual

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INTRODUCTION

PRESBYTERIAN CHURCH IN AMERICA (PCA)

The Presbyterian Church in America (PCA) was formed in 1973 to be a denomination that is “Faithful to the Scriptures, True to the Reformed Faith, and Obedient to the Great Commission.”

The PCA is an evangelical denomination in that we proclaim the gospel of salvation through faith in Jesus Christ. The word “evangelical” comes from the Greek word meaning “good news.” We desire all people to trust in the saving work of Jesus and enjoy eternal life in him.

The PCA is a reformed denomination in that we believe in the biblical truth proclaimed during the Protestant Reformation. The Word of God, rather than tradition, is the only guide for the Church. God alone saves through his immeasurable mercy and according to his sovereign plan. We believe the system of doctrine taught in the Bible is summarized well in the Westminster Confession of Faith with the Larger and Shorter Catechisms.

The PCA is a Presbyterian denomination in that we have a representative form of church government. A local church is governed by a “Session” comprised of elders (i.e., “presbyters”) elected by the members of the congregation. Pastors and representatives of local churches in a region form a “Presbytery.” Representatives of Presbyteries and local churches meet annually at a “General Assembly.”

The General Assembly Committees and Agencies help local churches combine their efforts and resources to advance God’s Kingdom more effectively.

MISSION TO NORTH AMERICA (MNA)

Mission to North America is a permanent committee of the PCA and exists to celebrate and share the gospel of Jesus Christ in the United States and Canada by coming alongside the local and regional church in church planting, church renewal and missional partnerships.

Our Core Values:

Centrality of the gospel – The gospel is good news for those who believe, as well as those yet to believe, in the person and work of Jesus, who came to seek and save the lost.

Call to evangelism – Celebrating the gospel involves sharing it. To know Christ is to make him known. We share joyfully what we treasure deeply.

Power of prayer – Jesus calls us to abide in him, that we may bear much good fruit. We abide in Christ through prayer, pursuing his way, his life and his mission, rather than our own.



Unity and diversity of the church – We are one body in Christ, made up of many different members, with differing spiritual gifts, experiences, backgrounds, and endowments for ministry.

Multiplication of ministry – We pray and work for multiplication of ministry and gospel fruitfulness through leaders of leaders being identified, trained, mentored, and coached. We empower these leaders, pressing ministry down and out, which seems to be an approach our Lord favored and modeled for us.

Energy from clarity – Clarity brings energy. We seek to be clear about our vision and values, our avenues for ministry, and our ministry goals and objectives, all in submission to Scripture, praying for a Spirit-filled energy for the work ahead to flow from this clarity.

Our Avenues of Ministry:

Church Planting

MNA seeks to connect meaningfully every PCA congregation to church planting (“every church a church planting church”), by encouraging the following steps:

- To pray for church plants,
- To give to church planting, locally and regionally, and in underdeveloped regions,
- To join or form a church planting network (city-wide, presbytery/region, affinity group),
- To launch a daughter church or additional worshiping site,
- To become part of a church planting eco-system.

MNA will promote gospel unity and diversity in our church planting efforts as we:

- Stay anchored to Scripture as our only rule of faith and practice, stay committed to the historic means of grace, and stay focused on making disciples of Jesus, shepherding them in the faith and equipping them for mission.
- Raise up, recruit, and send to the field many different kinds of church planters/church planting teams – multi-form in race and ethnicity, in socio-economic and educational background, in previous ministry experience, and in commitments to worship style and philosophy of ministry.
- Mainstream and integrate our minority church planting initiatives into a coherent whole – a multi-ethnic church planting movement under multi-ethnic leadership at all levels.

Missional Partnerships

The cultural questions of our time seem not to be so much “What is true?” or “What is authentic?” but rather “What works?” and “What makes a difference in our world?” MNA’s missional partnerships become crucial in this sort of cultural moment.

MNA seeks to come alongside the church in answering these sorts of questions, which both world and church may be asking, through these gospel initiatives in word and deed:

- Where is the church when there is great physical and spiritual need after a disaster? (Disaster Response)



- Where is the church for the alien and stranger among us? (ESL; Refugee & Immigrant Ministries)
- Where is the church when there is radical racial injustice, inequity, and tension on display? (Urban & Mercy Ministries)
- Where is the church for those serving in our military, police force and as first responders and for their families? (Chaplain Ministries)
- Where is the church for those in prison and their families? (Metanoia Prison Ministries)
- Where is the church for those with disabilities and their families? (Engaging Disabilities)
- How is the church expressing care and a prophetic voice in our centers of government? (Ministry to State)
- How I can use my gifts, skills, and experiences to make a difference? (Second Career)

Church Renewal

Renewal is a way of life for all Christians and all congregations. MNA seeks to provide a leading edge within the PCA to encourage gospel renewal as a way of life among our members, congregations, presbyteries, and the entire denomination: renewal individually and collectively in our faith and repentance toward Christ; renewal in our first love for Jesus and his mission; renewal in vibrant worship; renewal in authentic community; renewal in fruitful witness; and renewal in other beautiful kingdom expressions, all because of the gospel of Jesus.

MNA, working in partnership with the other agencies of the PCA, will pray and labor to see our congregations become spiritually charged, magnetized with the gospel of Christ, so that we are not only houses of prayer for all the people groups of our cities, towns, and rural regions, but also gathering places for all kinds of people to come find forgiveness, rest, refreshment, and purpose in Jesus, who alone provides true hope and life. MNA will designate church renewal as a third major expression of ministry, like a third leg for a stool, so that church renewal stands alongside church planting and missional partnerships in how we go about our work.

In the pursuit of church renewal, MNA will:

- Host prayer summits/gatherings for the renewing and reviving of the church, in partnership with other PCA agencies.
- Connect for collaboration and synergistic effort the key leaders and groups who are active in pursuing church renewal within the PCA.
- Offer resources – such as materials, conferences, coaching, cohort groups – on church renewal.
- Establish and appoint MNA church renewal staff and subcommittee on church renewal.

MISSION TO NORTH AMERICA DISASTER RESPONSE (MNADR)

By Presbyterian Church in America (PCA) General Assembly assignment, Mission to North America coordinates PCA disaster response in the United States and Canada, including all USA and Canada Territories. MNA accomplishes this vital task through a core missional partnership, MNA Disaster Response (MNADR). Dedicated leadership and regional staff, a growing network of Key Leaders, and Volunteers Relief Providers work together to train, equip, and mobilize the greater PCA in relief work.

During 2006 MNA Disaster Response reorganized to better empower lay leadership. As of spring 2021, this growing network of relief providers has trained, equipped, and mobilized more than 160,000 volunteers to disaster affected communities in desperate need, including rebuilding at least 28 PCA church physical plants. MNA has responded to every major disaster to strike the US and Canada during this timeframe including Hurricane Sandy-the largest Hurricane, Hurricane Katrina-the most destructive hurricane, the 2010 Haiti Earthquake--the most deadly and destructive earthquake in the western hemisphere, the 2011 SE Tornado Outbreak--the US's largest tornado outbreak, Hurricane Harvey and Hurricane Katrina tied as the costliest hurricanes on record, Hurricane Irma- the strongest storm on record to exist in the open Atlantic region, The Great Iowa Flood, and many other smaller events including man-induced calamities. The recent 2020 season featured 31 (sub)tropical cyclones of which 30 became named storms, 12 of which affected communities served by the PCA.

Mission to North America Disaster Response coordinates a network of relief providers consisting of first responders, long-term recovery operators, chainsaw & debris removal teams, blue-roofing teams, site managers, assessment teams, logistics personnel. MNADR appeals for and then channels relief funds to church diaconates and presbyteries who assist the church and unchurched.

MNADR owns and operates a major disaster readiness training center and warehouse in Rome, GA, and leases depots in Dallas, Texas, and Smithfield, Virginia. The warehouse and depots stock prepositioned supplies and equipment that are 'ready-to-go', and strategically provide a transfer point to relay relief supplies into hard-hit areas. Five different types of relief kits are stocked at the warehouses in large quantities, including Sheds of Hope (SOH) kits. Large equipment such as delivery trailers, shower trailers, mobile bunkhouses, mud-out trailers, flat bed trailers, and other equipment is on standby at these locations. The Rome warehouse also includes a workshop to repair and rebuild relief equipment.

MOBILE BUNKHOUSES

**SEE APPENDIX FOR COMPLETE DEPLOYMENT, OPERATIONS, RECOVERY, AND MAINTENANCE CHECKLISTS FOR MOBILE BUNKHOUSE TRAILER.*

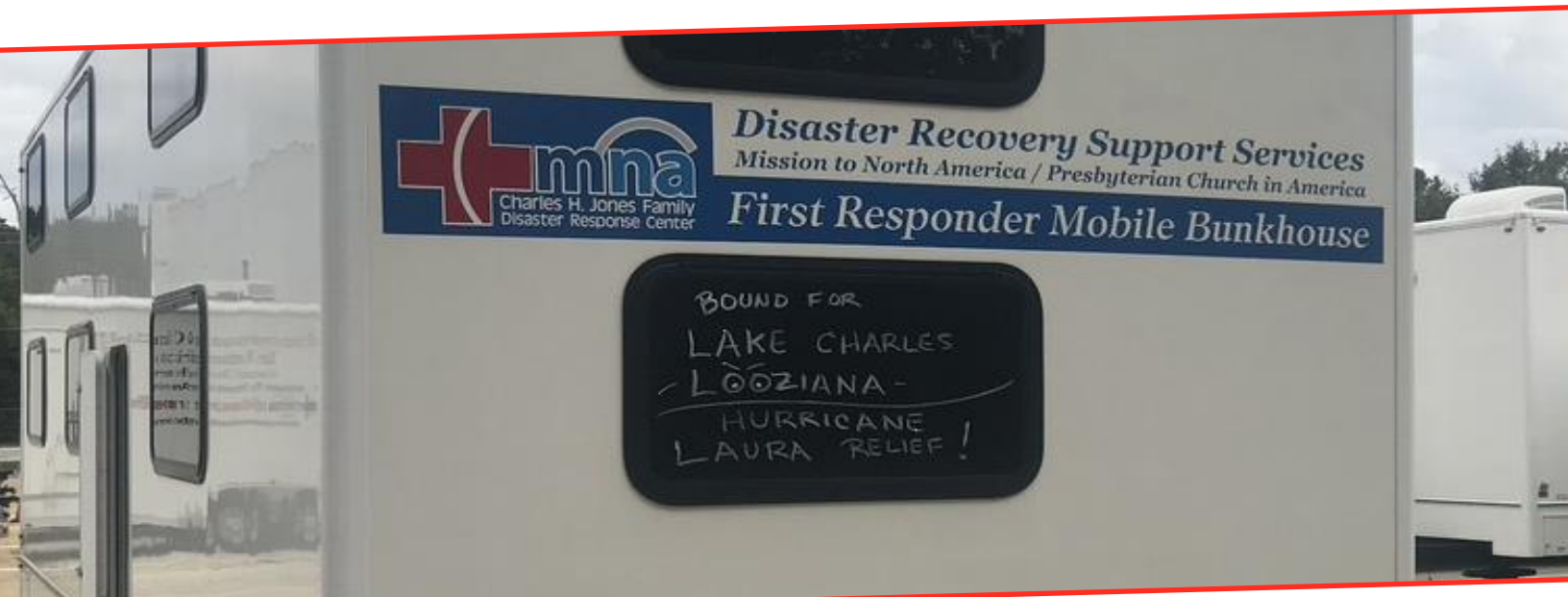
PURPOSE & USE

MNADR coordinates a growing network of mobile bunkhouse trailers. The purpose of these valuable assets is to provide safe, secure, temperature-controlled sleeping accommodations for volunteer relief providers. MNADR typically establishes recovery worksite bases of operation at PCA physical plants at or near ground zero of disasters. Generally, churches do have classrooms and/or fellowship halls that can be used for sleeping, however, after a disaster these areas are heavily used, making the conversion of these areas acceptable for volunteers problematic at best. By its very nature, disaster recovery work is dirty and energy-sapping work. Volunteers and staff must have access to **temperature**-controlled sleeping arrangements to ensure the sustainability of the hosting site for longer periods of time..

The MNA DR Director assigns mobile bunkhouses to specific disaster recovery sites and provides direction to the MNA DR Specialist, Logistics to facilitate transport. These decisions are made based on overall needs and in concert with MNA DR Specialists, presbytery and church leaders, and the MNA DR Warehouse Manager. Factors such as power availability, security, closeness to the most likely worksites, and proximity to kitchens and showers are other factors.

PRE-DEPLOYMENT CHECKLIST

Before transporting a mobile bunkhouse, the transporter must:



- ☐ Ensure the registration, insurance card, and vehicle tag are current and copies of documents are furnished.
- ☐ Check the tire pressure of all tires, including the spare tire. Check the wheel lug nuts must be checked for correct torque. A chart is included on page 57.
- ☐ Verify that a four-way lug wrench and the hydraulic jack are stowed within the utility room.
- ☐ Check the wheel bearing grease.
- ☐ Verify all doors are closed, latched, and locked for travel.
- ☐ Verify all the mobile bunkhouse keys are there. Every lock must have a matching key before transport, including all door locks, utility room lock, spare tire locks, coupler locks, the cable lock on the generator, and the ignition key for the generator. There is nothing more embarrassing than to arrive at a worksite without the keys!
- ☐ Ensure wheel chocks are on board and stowed.
- ☐ Verify the three heavy-duty yellow twist lock cords are on board and stowed in the utility room. There must also be three-100 foot 12-gauge extension cords on board.
- ☐ Ensure the stabilizer spin jack handle is stowed in the utility room, and the jacks are in the raised position.
- ☐ Verify that two sets of floor mats are on board for each door. One set for outside at step landing area and one set inside the doors.
- ☐ Check all trailer lights and electric brakes are in operational order. Mobile bunkhouses have 7-pin connectors.
- ☐ Verify that the breakaway lanyard is intact and operational.
- ☐ Verify that the safety chains are intact and are connected to the tow vehicle properly.
- ☐ All MNA mobile bunkhouses require a 2 5/16" trailer hitch ball. Check the condition of the hitch ball and hitch on the towing vehicle..
- ☐ Check that all doors and steps are secured. A set of steps becoming unsecured and dropping during transport will most assuredly cause an accident and possible injury or death. Do not take a chance on this.
- ☐ Verify that the tongue mounted Honda generator has recently been serviced and is full of fuel. A full portable 5- or 6-gallon fuel can, and funnel should be shipped with the mobile bunkhouse. Verify that the generator starts and runs before transporting the mobile bunkhouse.
- ☐ Optional. 12-volt inflator pump, fix-a-flat, and tire plugging kit.

Site Selection and Setup

Setting up a mobile bunkhouse should take about an hour with some practice.

Site Selection

Before parking the unit, evaluate the potential site location carefully. Locating the mobile bunkhouse in a secure location is of utmost importance. Consider the vehicular traffic flow through the parking lot or other area that will become the setup site. Proximity to the church fellowship hall where meals will be

prepared and served and access to restrooms and showers is important, especially during inclement weather.

Ideally the trailer should be located within 100 feet of the electric power supply; the supplied extension cords should not be placed end to end since their capacity is not adequate to supply the correct voltage when using cords longer than 100 feet without harming the trailer equipment. Each of the circuits requires a dedicated 20-amp supply.

Locating the mobile bunkhouse on pavement or concrete is preferred rather than a location in a field, lawn, or landscaped area. Doing so will reduce the amount of foreign materials carried into the bunkhouse such as dirt or mud by shoes or boots, which in turn will reduce the amount of time spent cleaning of the bunkhouse each day. A level area will require much less set up time and make adjusting the trailer stabilizer jacks less difficult.

Step by Step Setup

2. Position the bunkhouse at chosen location and check for overall level before unhooking from the tow vehicle. Lots of difficult work can be prevented by choosing a level set up location. Scotch wheels before unhooking from the tow vehicle. The scotches are typically located inside the utility closet for transport. After unhooking trailer from the tow vehicle reinstall the two coupler locks to reduce the possibility of theft.
3. Level unit — this is very important! If the bunkhouse is not leveled, volunteers will have difficulty entering, exiting and sleeping in the bunkhouse. The doors may not open and close properly, and the HVAC system may not operate correctly, if at all. Side to side leveling must be accomplished by using wood cribbing, typically 2x6 boards to drive the unit up on. A slight amount of side to side leveling can be accomplished by using the stabilizer jacks, but they are light duty and are only for stabilizing an already level trailer, not lifting the bunkhouse!

Once the trailer is level side to side, use the front jack ram to level the unit from front to back. Using the stabilizer jack on each corner make final adjustments. Use a torpedo level, do not depend on the bubble levels which are stuck on the side of the trailer, they are unreliable. The spin handle for the scissor stabilizer jacks is in the utility room. Rubber or plastic ground pads are also in the utility room to place under the jacks to alleviate the jacks from sinking in soft pavement and to keep them cleaner. Typically, additional wood blocking, if needed, is available in a 5-gallon bucket that is usually transported in the utility closet.

4. Deployable steps and handrails. Mobile bunkhouses have storable steps that can now be deployed. Ensure that the removable safety pin is replaced or stored in a known secure place for reuse when the bunkhouse is again transported. Be careful to prevent pinched fingers or allowing the steps to unfold uncontrolled which would likely result in an injury. Once deployed, the next step is to unfold and secure the handrails.



5. Connect to shore power. As previously mentioned, power source/supply considerations should have been addressed while choosing the set-up location.

First step is to access the utility closet and verify that all electrical breakers are in the 'off' position. Also ensure that the 12v 'red' battery selector switch is in the 'off' position.

Next, connect three yellow twist-lock cords to extension cords to the shore power entrance receptacles. The receptacles are located within a small utility cabinet located low on the exterior left side of the trailer at near the very front. Each cord and corresponding circuit provide power for a specific function and are independent of each other. The best scenario is to plug the opposite end of the yellow cords directly into three independent-of-each-other 20-amp circuits which have been designated by the shore power provider. If three circuits are not available, a decision will need to be made relative to which bunkhouse circuits and corresponding equipment is the most desired, e.g., one heat pump rather than two, or one heat pump and lighting, rather than two heat pumps, etc.

On board the mobile bunkhouse, each circuit is controlled by a specific breaker box within the utility closet. Each breaker box designates the power supply to specific circuits. One breaker box supplies power to the inverter/charger which in-turn charges a 12v battery (mounted on the trailer tongue) which in-turn supplies power to the interior LED lighting and exterior step area lighting. Each of the other circuits supplies power to a specific number of wall receptacles, bunkbed lights, and a roof top heat pump.

Note: It is wise to always close and lock the utility closet after setup for the following reasons. Unauthorized access can result in tampering with the electrical circuits by those with limited knowledge of the system operation. Further, other expensive supplies are located within the utility closet such as hydraulic jacks, lug wrenches, tools, etc. The reason that the breaker boxes are secured within a locked closet is no mistake. Only the trained site manager or hosting site coordinator should have access to the utility closet.

Auxiliary power generator. Each mobile bunkhouse has an auxiliary Honda EU7000is fuel-injected inverter generator mounted on the tongue of the trailer. This valuable asset is designed to provide temporary electrical power to the mobile bunkhouse until a permanent stable shore power supply is available. No long-term use is intended. Having this provision allows first responders to access a hard-hit area and establish a worksite for volunteers which will follow. When first arriving to establish a worksite, a priority is establishing stable housing, showers, and feeding volunteers. The Honda power units can also be used to temporarily supply power to mobile shower units.

SHOWER TRAILERS

**SEE APPENDIX FOR COMPLETE DEPLOYMENT, OPERATIONS, RECOVERY, AND MAINTENANCE CHECKLISTS FOR SHOWER TRAILER.*

PURPOSE & USE

MNADR coordinates a growing network of mobile shower trailers. The purpose of these valuable assets is to provide safe, secure, temperature-controlled showers for volunteer relief providers and displaced homeowners. MNADR is a ministry of the PCA, and our primary mission is to serve the more than 1,800 churches that are part of our denomination.

MNADR typically establishes recovery worksite bases of operation at PCA physical plants at or near ground zero of disasters. Generally, churches do not have showers, and if they do, there is typically only one. Disaster recovery work is by its very nature, is dirty, nasty, energy-sapping work. Volunteers and staff must have access to hygienic showers after workdays. Lack of showers ensures worksites will not be sustainable for any other than local volunteers.

The MNA DR Director assigns shower trailers to specific disaster recovery sites and schedules transport. These decisions are made based on information of overall needs and in concert with MNA DR Specialists, presbytery, and church leaders, and the MNA DR Warehouse Manager.

Types of shower trailers

Shower trailers in the MNA stable include units manufactured by Wells Cargo UltraLav, Forrest River, and JAG, all of which are top brands which have been in the business for many years. These important tools can cost between \$30,000 - \$40,000, or more. They are awesome, expensive to maintain, somewhat temperamental, and easily damaged by freezing temperatures. Some of the trailers have two showers, some three showers and some four showers.

The shower trailers in our fleet have temperature controlled changing areas and shower stalls by way of roof top HVAC systems. Some of the trailers have supplemental electric wall heaters. Shower water is heated by propane fueled tankless hot water heaters. The trailers have fresh water and grey water storage capacity, but typically we do not store water, fresh or grey, in the holding tanks. We hook directly to utility water for supply and dump the grey water on the ground. Check local rules on dumping grey water. The lighting and hot water heater heater ignition requires 110 VAC from a stable utility source or an approved portable generator.

PRE-DEPLOYMENT CHECKLIST

Before transporting a shower trailer, the transporter must:

- ☐ Ensure the registration, insurance card, and vehicle tag are current.
- ☐ If the particular trailer has demountable steps, ensure all steps are loaded into transport vehicle. NEVER transport demountable steps inside a shower stall or changing area since the raw aluminum will permanently damage the interior finishes of the trailer. Handrails can be stowed and transported in the utility closet, never in a shower stall or changing area. Verify that attaching hardware and leveling screws are attached and functional.
- ☐ If the particular trailer has permanently mounted deployable steps and porches, ensure they are stowed correctly, and all hardware is appropriate and secure. Ensure the leveling screws are secure and will not be lost during transport. Ensure all demountable handrails are stowed within the utility closet. Handrails should NEVER be transported within a shower stall or changing area since the raw aluminum will permanently damage the interior finishes of the



trailer. Verify that all attaching and securing hardware is present and accounted for.

- ☐ Check the tire pressure of all tires, including the spare tire. Check the wheel lug nuts must be checked for correct torque. A chart is included on page 57.
- ☐ Verify that a four-way lug wrench and hydraulic jack are stowed within the utility room.
- ☐ Check wheel bearing grease.
- ☐ Close, latch, and lock all doors for travel.
- ☐ Verify that the holding tanks are empty, both fresh and gray water tanks. A full tank can easily add thousands of pounds of additional weight to the trailer which can prove hazardous or even deadly.
- ☐ Ensure all shower trailer keys are available. Every lock must have a matching key before transport, including all door locks, utility cabinet locks, spare tire locks, coupler locks, the cable lock on the propane tanks, and the waste port cabinet door. There is nothing more embarrassing than to arrive at a worksite without the keys!
- ☐ Verify wheel chocks are on board and stowed.
- ☐ Verify at least one 100-foot water hose and extra water hose washers are on board. Two hoses would be better. Locating additional hoses in a disaster zone is likely impossible.
- ☐ Verify at least one 100-foot 12-gauge extension cord for each circuit are on board. For full functionality two cords are needed for two and three-stall shower trailers; four cords are needed for four-stall shower trailers.
- ☐ Ensure the stabilizer spin jack handle is stowed in the utility room, and the jacks are in the raised position.
- ☐ Verify the propane tanks are filled and that the valves are in the closed position.
- ☐ Verify floor mats are on board for each shower changing area and another complete for use at bottom of boarding steps.
- ☐ Check that a sitting stool is stowed within each changing area.
- ☐ Verify the shower curtains are installed and clean in each shower.
- ☐ Check that wheel chocks are on board along with extra wood cribbing for leveling the trailer during setup.
- ☐ Ensure all trailer lights and electric brakes are in operational order. Shower trailers have 7-pin connectors.
- ☐ Verify that the breakaway lanyard is intact and operational.
- ☐ Verify that the safety chains are intact and are connected to the tow vehicle properly.
- ☐ All MNA Shower Trailers require a 2 5/16" trailer hitch ball. Check the condition of the tow-vehicle hitch ball.
- ☐ Ensure all doors are secured and that steps are secured. A set of steps becoming unsecured and dropping during transport will most assuredly cause an accident and possible injury or death. Do not take a chance on this.

- ❑ Verify that shower stall cleaning products, trash cans and trash bags are on board.
- ❑ Optional. 12-volt inflator pump, fix-a-flat, and tire plugging kit. PEX tubing, fittings, and PEX crimping tool.

Site Selection and Setup

Setting up a shower trailer should take about an hour with some practice.

Importance of Site Selection

Before parking the unit, evaluate the potential site location carefully. Consider the vehicular traffic flow thru the parking lot or other area that will become the setup site. Will the trailer be only used for volunteers? If so, proximity to the closest point possible to the access door of the volunteer sleeping areas is helpful, especially during inclement weather. If the trailer will also be used for displaced community member to shower and/or for sheltering operations one should take that into consideration. If used for other than volunteers, it is unwise to locate the trailer near the volunteer sleeping area.

Understand the direction the shower stall entrance doors should face for best access by users. Also evaluate the electricity and water supply which connect on the utility closet side of the trailer. In most instances the setup location is highly dependent on how best to drain the gray water; the drain water port is located on the rear of the trailer. Ideally the trailer should be located within 100 feet of the electric power supply; the supplied extension cords should not be placed end to end since their capacity is not adequate to supply the correct voltage when using cords longer than 100 feet without harming the trailer equipment. Each of the circuits requires an isolated 20-amp supply. Three-stall shower trailers typically require two separate 20-amp circuits. Four-stall shower trailers can require up to four separate 20-amp circuits.

Locating the shower trailer on pavement or concrete is preferred rather than a location in a field, lawn, or landscaped area. Doing so will reduce the amount of foreign materials carried into the changing areas such as dirt or mud by shoes or boots, which in turn will reduce the amount of time spent cleaning of the showers each day. A level area will require much less set up time and make adjusting the trailer stabilizer jacks and the porch/step leveling jacks less difficult.

Step-by-Step Setup Instructions

1. Position trailer at chosen location and scotch wheels before unhooking from the tow vehicle. The scotches are typically located inside the utility closet for transport. After unhooking trailer from the tow vehicle reinstall the two coupler locks to reduce the possibility of theft.
2. Level unit — this is very important! If the unit is not level, the shower pans will not drain properly, the handrails will be difficult or impossible to install, the hot water heater may not ignite, the access steps, porches, and shower stalls can be



dangerous, and doors will not open and close properly. Using the front jack ram, level the unit from front to back. Using the Scissor Jacks on each corner, level the unit from side to side. Use a torpedo level, do not depend on the bubble levels which are stuck on the side of the trailer, they are unreliable. A very slight tilt towards the rear helps the shower gray water to drain better. The handle for the scissor stabilizer jacks is in the utility room. Rubber pads are also in the utility room to place under the jacks to alleviate the jacks from sinking in soft pavement and to keep them cleaner. Typically, additional wood blocking, if needed, is available in a 5-gallon bucket that is usually transported in a changing area or the utility closet.

3. On units that have detachable steps, attach one set of steps beneath each shower access door with tractor pins provided. Each set of steps is identical. On units that have permanently attached step/porch combinations, remove the retaining fastener, and unfold. Take care to prevent pinched fingers or allowing the steps to unfold uncontrolled which would likely result in an injury. Adjust leveling jacks to level steps and or porches. Typically, wood blocks are required to place under each leveling jack if setting up on soft ground. On concrete or pavement wood blocks are not required. Take great care in leveling the steps and porches to ensure they are stable for safety's sake. Once level, the next step is attaching the handrails. They are typically stowed in the utility closet.
4. Connect power supply extension cords to desired shore-power receptacles. On some trailers these receptacles are mounted on the outside of the trailer adjacent and below the utility room access door. The on/off switches for each of the following circuits are located within the utility closet. Although they look like simple rocker switches, they are actually circuit breakers. If a fault occurs the circuit can be reset by switching the rocker switch off, and back on.
5. Shower trailers may have the following circuits:
6. Water heater. Although the tankless instant water heater is fueled by propane, the ignitor circuit is powered by 120v AC. Typically, the water heater and shower stall/changing room lights are on the same circuit. The water heater is mounted within the utility closet. Typically, we set the water temperature at 104. If working in an extremely hot climate you may want to program a cooler temperature, say 102 or 103. The control is mounted on the face of the heater if the heater is located within the utility closet. If the heater is mounted on the exterior of the trailer, the control will be inside the utility closet.
7. HVAC System. This takes a dedicated circuit. At some hosting sites only one circuit is available. If so, the HVAC circuit cannot be used since the circuit will be needed for the water heater and lighting circuit. In this eventuality, please rely on the ceiling mounted exhaust fans located in each changing area for greater comfort. When using the HVAC system, turn the ceiling exhaust fans off and close the vents in order to contain the conditioned air generated by the system, no need to waste the resource. The HVAC is controlled by a thermostat located within the utility closet. Make sure the control is turned on to either heat or cool and the fan is set to automatic. In addition, check to make sure the wall-mounted-breaker toggle-activated switch



is set to 'on'. This requires its own dedicated circuit.

8. Some trailers have supplemental electric wall heaters. If installed, they are visible within the changing areas. This feature requires a dedicated circuit to energize. These heaters should only be used in extremely cold climates. Care must be taken to ensure no materials, clothing, stools, etc. are placed near the wall heaters since a fire could result.
9. Some trailers have heated gray water holding tanks. If the trailer is deployed to a climate with freezing conditions an additional dedicated circuit is required to take advantage of this feature. The system, if installed, is visible within the utility closet. It is mounted on the wall and the piping is colored blue or green.
10. Note: It is wise to always close and lock the utility closet after setup for the following reasons. Direct sunlight and cold or heat can affect the thermostats ability to regulate the temperature in the shower stalls and changing areas since the HVAC return air uses the utility closet as a plenum. Protecting sensitive equipment from those unauthorized to service or 'adjust' settings is imperative. The reason all settings are controlled within a locked closet is no mistake. Only the trained site manager or hosting site coordinator should have access to the utility closet.
11. Connection to fresh water source. The shower trailer depends on utility water pressure to supply water to the shower heads. In rare instances when pressurized utility water is not available, the fresh water holding tanks can be used. See "Note 1" below to learn how to use this feature. To supply fresh water to the trailer, connect a heavy-duty garden hose to the water source and then to the entry port on the side of the trailer near the utility closet. Check for leaks. New hose washers are located within the utility closet. Within the utility closet is a series of valves which must be oriented in the correct position to supply water to the instant hot water heater. Only water passing thru the instant hot water heater is supplied to the showers – no cold water is available in the showers. The water control valve within each shower stall are not mixing valves; they are timed heated-water valves only. Shutoff valves within the utility closet can isolate each showers water supply. This is helpful when diagnosing a problem.
12. Note 1: There is a fresh water holding tank(s) within the utility closet. Typically, we do not use this tank(s). It is there in the event that a pressurized utility fresh water supply is not available or is interrupted. If the fresh water holding tank is required, the trailers holding tanks must be transported with water in the tanks; obviously, this must be accomplished before setting the trailer up. A series of valves must be operated to fill the tank.
13. When using the holding tank as a water supply for the showers a 12v DC water pump located within the utility closet is utilized to provide water to the hot water heater and on to the shower heads. Sometimes this pump, since it seldom used, is disconnected from the supply lines, and must be reconnected. The pump must be energized by toggling a small rocker switch located on the wall of the utility closet to the on position. The 12v DC pump is powered by an 120v AC circuit running through an inverter. Thus, 120v ac power must be available.
14. Gray water: Typically, gray water is drained into a landscape or grass area. Determine where the gray water will be channeled to. Volunteers, or anyone else, should not be forced to walk thru gray water to access the shower trailer. Constantly tracking gray water into the trailer and into a church building creates more work for all involved. A flexible drain hose and/or PVC pipe is available in the utility closet to attach to the drain port which is located on the rear of the trailer within a small door. This should have been addressed while determining the best setup spot. In rare instances, gray water can be containing in the gray water holding tank located in the undercarriage of the trailer, if the trailer is so equipped. If using the holding tank rather than dumping the gray water a plan MUST be in place to contract gray water removal to a waste hauler company every few days. There is a valve within the utility closet to divert gray water to the gray water holding tank rather than dumping out the rear of the trailer. A sight glass is available to determine holding tank levels. Using the holding tank is discouraged except in ultra-urban areas.

ENCLOSED, FLATBED, AND SPECIALITY TRAILERS

**SEE APPENDIX FOR COMPLETE DEPLOYMENT, OPERATIONS, RECOVERY, AND MAINTENANCE CHECKLISTS FOR ENCLOSED, FLATBED, AND SPECIALTY TRAILERS.*

PURPOSE & USE

MNADR owns a growing fleet of enclosed, flatbed, and specialty trailers. The purpose of ownership of these valuable assets is to guarantee uninterrupted and timely transportation of relief supplies and equipment to relief sites. Enclosed trailers are used to transport relief kits to and from the MNA Disaster Response warehouses and depots in Rome Georgia, Dallas Texas, and Smithfield Virginia. and to and from relief sites. Flatbed trailers are used to transport equipment and materials to and from relief sites and to transport Sheds of Hope components.

PRE-DEPLOYMENT CHECKLIST

Before transporting Enclosed, Flatbed, or Specialty Trailers, the transporter must:

- ☐ Ensure the registration, insurance card, and vehicle tag are current.
- ☐ Check that all keys and corresponding locks are available. Every lock must have a matching key before transport, including all door locks, spare tire locks, coupler locks, toolbox locks, ramp storage compartment locks, etc. There is nothing more embarrassing than to arrive at a worksite without the keys!
- ☐ Check the tire pressure of all tires, including the spare tire. Check the wheel lug nuts must be checked for correct torque. A chart is included on page 57.
- ☐ Verify that a four-way lug wrench and hydraulic jack or farm jack are stowed and secured.
- ☐ Check the wheel bearing grease.
- ☐ Close, latch, and lock all doors for travel. On Flatbed trailers, ensure that ramps, tailgates, forklift forks, etc. are secured properly. If trailers have exterior or interior mounted toolboxes, ensure the doors are locked.
- ☐ Verify wheel chocks are on board and stowed.
- ☐ Ensure all trailer lights and electric brakes are in operational order.



- ☐ Verify that the breakaway lanyard is intact and operational.
- ☐ Verify that the safety chains are intact and are connected to the tow vehicle properly.

Site Selection and Setup

Step-by-Step Setup Instructions

1. Ensure the trailer is parked in a safe location at the field site.
2. Put wheel chocks from inside trailer or in trailer tool box at each set of wheels.
3. Secure the trailer hitch lock and coupler lock for the trailer back onto the trailer.
4. Transfer the FULL SET of keys for the trailer to the MNADR Site Manager.
5. Ensure that the MNADR Site Manager thoroughly understands operation of any trailer specific features for that trailer, such as tilt or dump bed operations. MNADR Site Managers must be responsible for maintaining and overseeing the use of the trailer while it is located at field site location.

SUNDOWNER RV SITE MANAGER TRAILER

**SEE APPENDIX FOR COMPLETE DEPLOYMENT, OPERATIONS, RECOVERY, AND MAINTENANCE CHECKLISTS FOR SUNDOWNER TRAILER.*

PURPOSE & USE

The Sundowner RV Site Manager trailer provides on-site living accommodations for the designated MNADR Site Manager. The MNADR Director assigns the RV Site Manager trailer to specific disaster recovery work sites and then schedules deployment of the asset.

PRE-DEPLOYMENT CHECKLIST

- ☐ Ensure the RV Site Manager trailer interior living quarters is properly swept and mopped. There should be clean linens, dishes, towels, broom and mop, dustpan, cleaning products and mop bucket located somewhere inside the trailer living quarters
- ☐ Ensure interior roof vents are closed, all interior doors are closed, and interior items are properly stowed for travel
- ☐ Ensure that there are 2 clean floor mats located inside the trailer main entry door. (1 mat will be positioned outside at the bottom of the main entry steps during site setup)
- ☐ Ensure that the two trailer batteries (located at front exterior of trailer) are fully charged
- ☐ Ensure that the propane tanks are filled, secured with a cable lock, and the tank valves in the closed position
- ☐ Ensure that the water holding tanks (grey and black water) have been emptied (the discharge valve for each tank is located on the left side of the trailer, just in front of the tires) as this can add thousands of pounds to your total tow weight (water holding tanks on the Sundowner RV Site Manager trailer should generally remain empty when trailer is not deployed)

- ❑ Ensure all trailer tires (Including the spare tire) are properly Inflated. In most cases, the correct air pressure is marked in white chalk on the side of the tire. Check lug nuts on all wheels to ensure they are 'lug wrench' tight
- ❑ Ensure that all equipment and supplies being transported in the cargo area are secured
- ❑ Ensure the trailer awning above main entry door has been pulled in and is secured
- ❑ Ensure that all trailer entry steps are pulled out and securely stowed inside the living quarters area and that the main side trailer entry door is locked prior to travel
- ❑ Ensure that the onboard generator has fuel and will start and then LOCK the generator access door on the left side of the trailer
- ❑ Ensure all slide-outs are fully retracted on the trailer and all exterior doors are locked
- ❑ Ensure the trailer supply closet (access door is located on left side of trailer) has all necessary equipment and supplies noted below and then LOCK the supply closet door:
 - One 100' heavy-duty freshwater hose and extra hose washers (if there is room to have a second 100' heavy-duty water hose, it is highly recommended that trailer be supplied with two)
 - One flexible black water and one flexible grey water discharge hose
 - One heavy-duty (12 gauge) 100' extension cord PER EACH electrical circuit on the trailer
 - One fire extinguisher
 - Two yellow leveling wheel blocks
 - One 6-ton (minimum) bottle jack
 - One 4-way lug wrench
 - One Blaylock easy jack for tire changing
 - One plastic sleeve with current trailer insurance and registration documents
 - Two sets of wheel chocks
- ❑ Ensure that a proper vehicle is available for safe towing of the Sundowner RV Site Manager Trailer. This trailer weighs approximately 10,000lbs to 12,000 lbs. and requires a 3/4 ton or heavier



pickup with gooseneck hitch and trailer brake capability to tow

- ❑ When connecting trailer to tow vehicle, ensure that the trailer gooseneck hitch is secured and locked on the ball of the tow vehicle, the coupler lock should be secured, and the electrical connection, safety chains and trailer break-away line secured to the tow vehicle
- ❑ Ensure that the electric front stabilizer jacks are fully retracted and stored in UP position
- ❑ Once trailer is connected to the tow vehicle, ensure that all trailer lights (and trailer brakes, if so equipped) function properly.
- ❑ If Kubota 520 UTV is being transported inside RV Trailer, make sure it is carefully loaded into the garage area at the back of the trailer (load forward into trailer), parked with each tire between the anchoring pads, and ALL tires secured to each anchoring pad with tire straps.
- ❑ Ensure that a FULL SET of keys for the trailer are carried for transfer to the MNADR Site Manager for field use.

Site Selection and Setup

Importance of Site Selection

Before parking the unit, evaluate the potential site location carefully. Locating the Sundowner trailer in a secure location is of utmost importance.

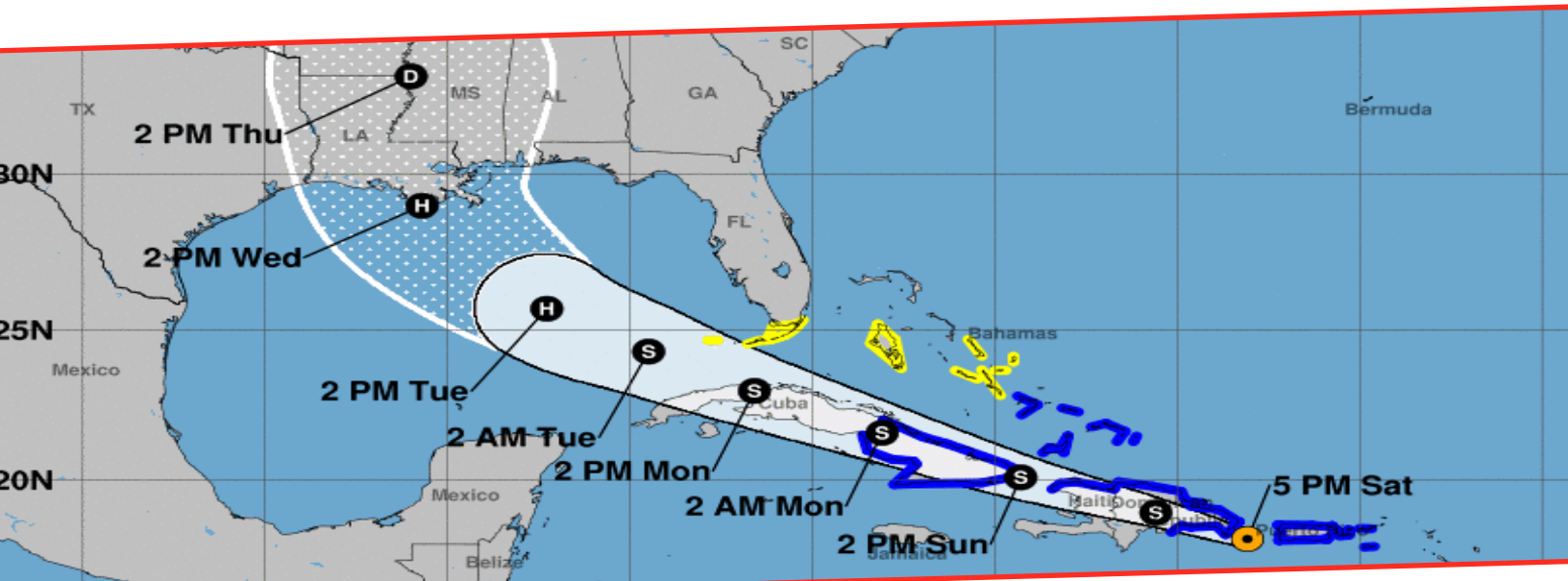
Ideally the trailer should be located within 100 feet of the electric power supply as well as 100 feet from the water supply.

Locating the Sundowner trailer on pavement or concrete is preferred rather than a location in a field, lawn, or landscaped area. A level area will require much less set up time and make adjusting the trailer stabilizer jacks less difficult.

Step-by-Step Setup Instructions

1. Prior to unhooking from tow vehicle, ensure the trailer is parked in a level and safe location that has a) the necessary access to shore power (30A) circuits within 100' of trailer location as electrical power becomes compromised beyond that distance (and can damage the trailer electrical equipment) and should ALWAYS be less than 100' from the power source (Unless you will be utilizing the onboard generator for power needs), b) a dedicated water supply preferably within 100' of the trailer location, and c) proper grey and black water drainage access from the left side of the trailer. Use the leveling blocks found in utility closet if additional leveling is required
2. Acclimate the trailer main entry door and rear cargo doors/ramp in the desired location for best ongoing access to/from the trailer. Remember to watch for trees or other obstacles which might interfere with slide-out operation. Consideration of other work site components such as shower or bunkhouse trailers, church access or mess tent may also be a factor
3. It is advisable to locate the RV Site Manager trailer on pavement or concrete rather than ground or gravel due to the weight of the trailer, trailer leveling concerns, and the tracking of foreign debris and dirt into the trailer
4. Put wheel chocks from utility closet at each set of wheels
5. Lower the 2 hydraulic leveling jacks at each front corner of the trailer (put a block of wood from utility closet under each leveling jack) and level trailer front-to-back and side-to-side. You want a slight tilt towards the rear of the trailer for proper water drainage
6. Secure the trailer gooseneck hitch locks (there are two steel lockboxes) for the trailer back onto the trailer hitch

7. Secure the unattached trailer entry step into the support tubes beneath the main entry door. Place 1 door mat just inside main entry door and 1 at bottom of main entry steps
8. Turn on the propane tank valve. Since this trailer has multiple propane tanks, only One tank has to be turned on and the directional valve (located between and at the top of the tanks) turned on for that tank
9. Connect electrical power extension cord to shore power and then to the main electrical circuit located on the outside right side trailer wall. This RV Site Manager trailer has the following electrical components:
10. Main Electrical Panel – This panel is located just inside the main side entry door of the trailer and controls electrical power to the trailer and provides information regarding the various electrical components, fuel reserves, and tank reserves. The panel also has light switches to control the living area lighting. The ON/OFF toggle switch for the electrical panel is located at ground level on the wall directly below the Main Electrical Panel and just inside the trailer door.
11. HVAC – The HVAC system.
12. Onboard Generator – The RV Site Manager trailer has an onboard generator capable of providing power to the trailer if shore power is not available or being utilized. This generator has a toggle start switch located on the top of the Main Electrical Panel just inside the main side entry door to the trailer. First, the Main Electrical Panel must be powered 'ON' by using the toggle Main Battery switch at ground level just inside the main side entry door to the trailer. Then the Generator Start toggle switch should be held 'ON' for a few seconds until the generator is automatically primed and starts. The generator light will illuminate on the main electrical panel once the generator is started. The generator also has a manual start switch outside at the lower front of the generator itself.
13. Hot Water Heater – The instant hot water tank runs off the propane tanks at the front of the trailer but has an electric ignitor switch. Typically, the hot water heater and shower stall lights run off the same electrical circuit. The thermostat control for the hot water heater is located on the hot water heater in the utility closet.
14. Kitchen Appliances – The refrigerator and stove both run off the propane tanks at the front of the trailer.
15. Connect heavy duty water hose from fresh water source to trailer intake spigot. This spigot is usually located on the outside of the trailer. Turn on the water supply at the fresh water source and check the hose and connections for water leaks. If new hose washers are needed, a supply of washers should be available inside the trailer utility closet. Located within the inside utility closet are a series of water valves which control the water supply to the hot water heater and the water supply to other



faucets in the trailer. Each of these water control valves can be OPENED/CLOSED, thereby controlling the flow of all water into the instant water heater unit and out to other faucets.

- NOTE: This trailer has a fresh water holding tank located under the trailer. This freshwater tank would NOT normally be utilized and therefore should not be filled with water. DO NOT open control valves to fill this holding tank.

16. Connect the grey water drainage flexible hose to the trailer drain connection. This connection is located outside of the trailer in front of the left side wheels. Pull the T Valve to open this drain and allow drainage water to flow out through the hose. Usually, the grey water is drained out through this flexible hose and into a landscape or grassy area, or designated water drainage system. This drainage area needs to be sloped downhill from the trailer and away from potential foot traffic as you do NOT want people having to track through the grey water area. If there is no acceptable outside drainage area and the grey water holding tank in the RV Site Manager trailer has to be utilized to capture grey water, a plan MUST be put in place to have this grey water holding tank emptied and removed by a disposable waste hauler every few days. Use of the grey water holding tank on board the trailer is HIGHLY DISCOURAGED if it can be avoided.
17. Transfer the FULL SET of keys for the trailer to the MNADR Site Manager
18. Ensure that the MNADR Site Manager thoroughly understands operation of specific water heater, electric lights, power circuits, thermostats, propane supply and HVAC unit for this RV Site Manager trailer. There should also be a dedicated RV Site Manager Trailer Operations Manual specific to that trailer inside the utility closet for reference. MNADR Site Managers must be responsible for maintaining and regulating the water heater thermostats and electrical components within the RV Site Manager trailer.

DIESEL FUEL TRANSPORT & REFUELING TANKER TRAILER

**SEE APPENDIX FOR COMPLETE DEPLOYMENT, OPERATIONS, RECOVERY, AND MAINTENANCE CHECKLISTS FOR DIESEL TRAILER.*

PRE-DEPLOYMENT CHECKLIST

WARNING: THIS DIESEL FUEL TRAILER CONTAINS OFF-ROAD DIESEL FUEL AND IS NOT FOR PASSENGER VEHICLE USE.

- ☐ Ensure the Diesel Fuel trailer cover is properly removed and stowed inside toolbox.
- ☐ Ensure the fuel dispensing hose and the fuel pump are locked and dispensing hose spooled and safely secured
- ☐ Ensure that the safety fuel hazard placards are attached and clearly visible on the trailer
- ☐ Ensure all trailer tires (Including the spare tire) are properly Inflated. In most cases, the correct air pressure is marked in white chalk on the side of the tire. Check lug nuts on all wheels to ensure they are 'lug wrench' tight
- ☐ Ensure the trailer toolbox has all necessary general equipment and supplies noted below and then LOCK the toolbox:
 - One 6-ton (minimum) bottle jack
 - One 4-way lug wrench
 - Safety gloves, eye wash and first aid kit
 - One plastic sleeve with current trailer insurance and registration documents

- Two sets of wheel chocks
- Ensure that a proper vehicle is available for safe towing of the Special Use Diesel Fuel Trailer. This trailer weight will vary anywhere from 5,000lbs to 9,500lbs (depending upon amount of fuel in the 500-gallon holding tank) and will require a 3/4 ton or heavier pickup with trailer brake capability to tow
- When connecting trailer to tow vehicle, ensure that the trailer tongue hitch is secured and locked on the ball of the tow vehicle, the coupler lock should be secured, and the electrical connection and trailer break-away cable secured to the tow vehicle
- Once trailer is connected to the tow vehicle, ensure that all trailer lights (and trailer brakes, if so equipped) function properly
- Ensure that a FULL SET of keys for the trailer are carried for transfer to the MNADR Site Manager for field use.

Site Selection and Setup

Step-by-Step Setup Instructions

WARNING: THIS DIESEL FUEL TRAILER CONTAINS OFF-ROAD DIESEL FUEL AND IS NOT FOR PASSENGER VEHICLE USE.

1. Ensure the Diesel Fuel Trailer is parked in a safe location at the field site.
2. Put wheel chocks from inside tool box at each set of wheels.
3. Secure the trailer hitch lock and coupler lock for the trailer back onto the trailer.
4. Ensure that locks are on the dispensing nozzle and the pump lever mechanism.
5. Proper operation of the onboard fuel dispensing system requires several steps:
 - Unlock both the fuel dispensing nozzle and the fuel pump lever on the trailer.
 - Unspool the dispensing hose and place the dispensing nozzle inside the fuel tank to be filled (for periodic pump system testing, the fuel may be pumped straight back into the holding tank).
6. Record ALL dispensing or receipt of fuels from/to the fuel trailer on the Fuel Log located inside the black Log Documentation Tube mounted in the toolbox.
7. Transfer the FULL SET of keys for the trailer to the MNADR Site Manager.
8. Ensure that the MNADR Site Manager thoroughly understands operation of any trailer specific features for that trailer. MNADR Site Managers must be responsible for maintaining and



overseeing the use of the trailer while it is located at field site location.

SPECIAL USE DIESEL GENERATOR TRAILER

**SEE APPENDIX FOR COMPLETE DEPLOYMENT, OPERATIONS, RECOVERY, AND MAINTENANCE CHECKLISTS FOR DIESEL GENERATOR TRAILER.*

PRE-DEPLOYMENT CHECKLIST

- ☐ Ensure the Diesel Generator trailer compartment doors are locked and secured prior to transport and that the Power Selector Switch is locked.
- ☐ Ensure the trailer tires (including the spare tire) are properly inflated and check visibly for any other issues such as cracking.. In most cases, the correct air pressure is marked in white chalk on the side of the tire. Check lug nuts on all wheels to ensure they are 'lug wrench' tight.
- ☐ Ensure the trailer toolbox has all necessary general equipment and supplies noted below and then LOCK all the toolbox:
 - o One 6-ton (minimum) bottle jack
 - o One 4-way lug wrench
 - o Rubberized Safety gloves and first aid kit
 - o One plastic sleeve with current trailer insurance and registration documents
 - o Collapsible Safety cones
 - o Two sets of wheel chocks
- ☐ Ensure that a proper vehicle is available for safe towing of the Special Diesel Generator Trailer. This trailer weight is around 7,500lbs and will require a ½ ton or heavier pickup with trailer brake capability to tow.
- ☐ When connecting trailer to tow vehicle, ensure that the trailer tongue hitch is secured and locked on the ball of the tow vehicle, the coupler lock should be secured, and the electrical connection and trailer break-away cable secured to the tow vehicle.
- ☐ Once trailer is connected to the tow vehicle, ensure that all trailer lights function properly. This trailer utilizes an automatic hydraulic surge braking mechanism with automatic brake disabling hubs when reversing the trailer (requires a 7-pin electrical connection to be utilized to the tow vehicle). Check the hydraulic brake fluid level at the fill on top of the surge braking mechanism.
- ☐ Ensure that the generator trailer battery (located inside back right-side door of trailer) is fully charged.
- ☐ Ensure that all required electrical cables and spider boxes are delivered with the trailer. **** THE ELECTRICAL CABLING AND GENERATOR POWER SETTINGS ON THE GENERATOR SHOULD ALWAYS BE SET UP AND CONNECTED ONSITE BY A QUALIFIED AND CERTIFIED ELECTRICIAN.**
- ☐ Ensure that a FULL SET of keys for the trailer are carried for transfer to the MNADR Site Manager for field use.

Site Selection and Setup

Step-by-Step Setup Instructions

1. Ensure the Diesel Generator Trailer is parked in a safe location at the field site. The location should be as level as possible to prevent issues in fuel pickup within the trailer diesel tank.
2. Put wheel chocks from inside tool box at each set of wheels.
3. Secure the trailer hitch lock and coupler lock for the trailer back onto the trailer.
4. Ensure the Diesel Generator Trailer compartment doors are locked and secured prior to transport and that the Power Selector Switch is locked.
5. Ensure that all required electrical cables and spider boxes are delivered with the trailer.
**** THE ELECTRICAL CABLING AND GENERATOR POWER SETTINGS ON THE GENERATOR SHOULD ALWAYS BE SET UP ONSITE BY A QUALIFIED AND CERTIFIED ELECTRICIAN.**
6. Transfer the FULL SET of keys for the trailer to the MNADR Site Manager.
7. Ensure that the MNADR Site Manager thoroughly understands Generator power setup concerns and importance of ensuring proper load sizing on the Generator, proper Generator power up and power down operations, as well as operation of any trailer specific feature for the trailer. MNADR Site Managers must be responsible for maintaining and overseeing the use of the trailer while it is located at the field site location.

SPECIAL USE MUD OUT TRAILER

**SEE APPENDIX FOR COMPLETE DEPLOYMENT, OPERATIONS, RECOVERY, AND MAINTENANCE CHECKLISTS FOR MUD OUT TRAILER.*

PRE-DEPLOYMENT CHECKLIST

- ☐ Ensure the Mud Out trailer interior is properly wash out or blown out.
- ☐ Ensure all pressure washer and water hoses are securely spooled and stored inside the rear interior of trailer
- ☐ Ensure the trailer tires (including the spare tire) are properly inflated. In most cases, the correct air pressure is marked in white chalk on the side of the tire. Check lug nuts on all wheels to ensure they are 'lug wrench' tight.
- ☐ Ensure the trailer interior and shelves have all necessary general equipment and supplies noted below and then LOCK all the trailer doors (side and back):
 - o One 6-ton (minimum) bottle jack or hi-lift farm jack
 - o One 4-way lug wrench
 - o Air Moving fans, water pumps, water pump discharge hose, dehumidifiers, box fans, lights, brooms, shovels, and generator
 - o Power washer wands and attachments
 - o One plastic sleeve with current trailer insurance and registration documents
 - o Two sets of wheel chocks
- ☐ Ensure that a proper vehicle is available for safe towing of the Special Use Mud Out Trailer. This trailer generally weighs anywhere from 6,000lbs to 8,500lbs (depending upon amount of liquid in holding tanks and cargo being carried in addition to trailer weight) and will require a 1/2 ton or heavier pickup with trailer brake capability

- ❑ When connecting trailer to tow vehicle, ensure that the trailer tongue hitch is secured and locked on the ball of the tow vehicle, the coupler lock should be secured, and the electrical connection and trailer break-away cable secured to the tow vehicle
- ❑ Once trailer is connected to the tow vehicle, ensure that all trailer lights (and trailer brakes, if so equipped) function properly
- ❑ If additional cargo has been loaded inside of trailer, ensure that all cargo has been properly and thoroughly secured and strapped down.
- ❑ Ensure that a FULL SET of keys for the trailer are carried for transfer to the MNADR Site Manager for field use.

Site Selection and Setup

Step-by-Step Setup Instructions

1. Ensure the trailer is parked in a safe location at the field site
2. Put wheel chocks from inside trailer at each set of wheels
3. Secure the trailer hitch lock and coupler lock for the trailer back onto the trailer
4. Proper start up and operation of the onboard dual pressure washer system requires several steps. Failure to follow these steps CAN result in damage to the pressure washer pumps and motors:
5. Fill the onboard pressure washer(s) to be used with gasoline and check the engine oil
6. Connect the pressure washer wand to the spooled high pressure water hose attached to the specific pressure washer to be used
7. Connect the heavy-duty water hose on the spool in the back of the trailer to a fresh water supply faucet. This hose is already connected to the fresh water holding tank (large tank) on board the trailer. The smaller holding tanks are for cleaning agents which can be then automatically feed into each pressure washer (optional use)
8. Ensure that the proper onboard water valves for each tank inside the trailer are OPEN. These valves are on the left side wall and are labeled.
9. The fresh water supply hose MUST BE CONNECTED AND WATER SUPPLY TURNED ON PRIOR TO STARTING THE PRESSURE WASHER ENGINE(S)
10. Transfer the FULL SET of keys for the trailer to the MNADR Site Manager
11. Ensure that the MNADR Site Manager thoroughly understands operation of any trailer specific features for that trailer. MNADR Site Managers must be responsible for maintaining and overseeing the use of the trailer while it is located at field site location

Contact Information

Should you need assistance or have questions regarding the transport, setup, and maintenance of a MNA DR trailer please know that resources are available for assistance.

Marty Huddleston, MNA Dr Logistics Specialist 865-776-5619. mhuddleston@pcanet.org

Arklie Hooten, MNA DR Director 678-294-3011 ahooten@pcanet.org

Keith Perry, MNA DR Specialist Florida 321-431-7260 kperry@pcanet.org

Rick Lenz, MNA DR Specialist Texas/Oklahoma 817-690-8107 rlenz@pcanet.org

Richard Allinger Forest River Shower Trailers Service Department 574-266-7539.
cargo16warranty@forestriverinc.com

Wells Cargo UltraLav Shower Trailers 877-301-3837 sales@ultralav.com

APPENDIX

| | |
|--|--------------|
| JAG MOBILE BUNKHOUSE TRAILER CHECKLISTS | 27-30 |
| JAG SHOWER TRAILER CHECKLISTS | 31-34 |
| FOREST RIVER SHOWER TRAILER CHECKLISTS | 35-38 |
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JAG BUNKHOUSE FIELD DEPLOYMENT

Prior to the actual physical relocation and deployment of JAG bunkhouse trailer, the bunkhouse trailer must be prepared for safe transport to the field location. The steps required for proper transport preparation are as follows:

| CHECK | ITEM |
|-------|--|
| | Ensure the trailer interior is properly swept and mopped. There should be a broom, dustpan and bucket located inside the trailer. There should also be an electrical high output air scrubber/purifier/sanitizer inside the trailer to be used while at work site locations. This air scrubber must remain in the bunkhouse trailer. <u>Secure these items for safe travel as items do get tossed around during transport.</u> |
| | Ensure there are clean mattress covers installed on every bed and an extra set of 12 mattress covers stored inside the bunkhouse trailer. Check each bunk mattress for potential dampness from water leaks from around bunk windows. |
| | Ensure that there are 2 clean floor mats located at each door inside the trailer. |
| | Ensure all trailer tires (including the spare tire) are properly Inflated. In most cases, the correct air pressure is marked in white chalk on the side of the tire. Check lug nuts on all wheels to ensure they are 'lug wrench' tight. |
| | Ensure that all of the stabilizer scissor jacks are in the fully raised position for travel. |
| | Ensure that the entry doors are locked and steps are folded up and secured for travel. |
| | Ensure that the sliding divider wall (if bunkhouse trailer is so equipped) is secured. The sliding door is secured by a locking pin accessed through the trailer utility closet. |
| | Ensure the trailer supply closet has all necessary equipment and supplies noted below and then LOCK the supply closet door: |
| | a. 3 heavy duty (12 gauge) 100' extension cords |
| | b. 3 yellow HD short pigtail 30A to 15A connector cables |
| | c. 3 yellow HD 30A extension cords |
| | d. 1 yellow HD short split cable 30A to 15A connectors |
| | e. 1 fire extinguisher |
| | f. 4 stabilizer jack landing pads |
| | g. 2 yellow leveling wheel blocks |
| | h. 1 stabilizer jack spin wrench |
| | i. 1 6 ton (minimum) bottle jack |
| | j. 1 Blaylock easy jack for tire changing |
| | k. 1 4-way lug wrench |
| | l. 1 plastic sleeve with <u>current trailer insurance and registration</u> documents |
| | m. 2 sets of wheel chocks |
| | Determine whether the dedicated trailer power generator is to be mounted and deployed with trailer. If so, mount the power generator identified as belonging to that specific bunkhouse trailer securely to front generator mounts (there are two square steel collars that attach to the mounts) and lock all generator hitch pin and cable locks securing generator to trailer mount. Ensure that generator will start and run prior to transport. If generator is to be deployed with the trailer, a full 5-gallon fuel (gasoline) container and funnel should be transported with the bunkhouse trailer. |
| | Ensure that a proper vehicle is available for safe towing of the JAG Bunkhouse Trailer. This trailer weighs approximately 9,500lbs and requires a 3/4 ton or |
| | When connecting trailer to tow vehicle, ensure that the trailer tongue hitch is secured and locked on the ball of the tow vehicle. The coupler lock should be secured and the electrical connection and trailer break-away cable should be secured to the tow vehicle. |
| | Once trailer is connected to the tow vehicle, ensure that all trailer lights (and trailer brakes, if so equipped) function properly. |
| | Ensure that a FULL SET of operational keys for the trailer are carried for transfer to the MNADR Site Manager for field use while in possession of the trailer. |

JAG BUNKHOUSE FIELD SETUP & OPERATIONS QUICK CHECKLIST

Once the JAG bunkhouse trailer has been deployed, the trailer must be prepared for safe usage at the field location. The steps required for proper setup and operation are as follows:

[illegible]

JAG BUNKHOUSE TRAILER MAINTENANCE SCHEDULE

To ensure proper care of our MNADR asset and in order to be properly prepared and ready for rapid field deployment, the JAG bunkhouse trailer must be properly serviced, cleaned and adequately supplied. The schedule required for proper maintenance and cleaning is as follows:

| CHECK | ITEM |
|----------------------|--|
| ANNUALLY | |
| | Inspect and service axles and bearings (dictated by mileage and use). |
| | Update trailer onboard documentation and registration (this will be directed and controlled by the MNADR Logistics Specialist and the Facilitator). |
| SEMIANNUALLY | |
| | Clean the trailer exterior. |
| | Inventory, repair, and resupply utility closet supply and equipment. Equipment/supplies should include: |
| | a. 3 heavy-duty (12 gauge) 100' extension cords |
| | b. 3 yellow HD short pigtail 30A to 15A connector cables |
| | c. 3 yellow HD 30A extension cords |
| | d. 1 yellow HD short split cable 30A to 15A connectors |
| | e. 1 fire extinguisher |
| | f. 4 jack landing pads |
| | g. 1 stabilizer jack spin wrench |
| | h. 2 yellow leveling wheel blocks |
| | i. 1 6 ton (minimum) bottle jack |
| | j. 1 Blaylock easy jack for tire changing |
| | k. 1 4-way lug wrench |
| | l. 1 plastic sleeve with current trailer insurance and registration documents |
| | m. 2 sets of wheel chocks |
| QUARTERLY | |
| | Check the trailer tires and rims (including spare) for any signs of issues or problems. |
| | Check the trailer brakes to ensure they function properly **. |
| | Check the trailer lights to ensure they function properly **. |
| | Check exterior, locks, and doors for any issues |
| | Check each bunk mattress for potential dampness from water leaks. |
| | **Use a Ranger Mutt or 7-way circuit tester |
| UPON RECOVERY | |
| | Inspect and clean trailer exterior. |
| | Clean bedding inside trailer. |
| | Check each bunk mattress for potential dampness from water leaks. |
| | Wipe down all shelves and bunk rails with a germicidal cleaner. |
| | Vacuum, sweep, and mop interior. |
| | Inspect curtains at each bunk and replace as needed. |
| | Check/clean HVAC filters Inside at each HVAC unit. |
| | Check operation, perform any needed servicing on, properly dismount and store generator on a generator transport cart assigned to that specific bunkhouse trailer. |
| | Inventory, repair, replace, and resupply equipment and supplies (see supply list above under Semiannual Maintenance) |
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JAG SHOWER TRAILER FIELD SETUP & OPERATIONS QUICK CHECKLIST

Once the JAG shower trailer has been deployed, the trailer must be prepared for safe usage at the field location. The steps required for proper setup and operation are as follows:

[illegible]

FOREST RIVER SHOWER TRAILER FIELD RECOVERY QUICK CHECKLIST

Prior to the actual physical recovery and relocation of FOREST RIVER shower trailer, the trailer must be prepared for safe transport from the field location. The steps required for proper transport preparation are as follows:

[illegible]

FOREST RIVER SHOWER TRAILER MAINTENANCE SCHEDULE

To ensure proper care of our MNADR asset and in order to be properly prepared and ready for rapid field deployment, the FOREST RIVER shower trailer must be properly serviced, cleaned and adequately supplied. The schedule required for proper maintenance and cleaning is as follows:

| CHECK | ITEM |
|----------------------|---|
| ANNUALLY | |
| | Check and service axles and bearings (service required will be dictated by mileage and use during the year). |
| | Drain and winterize all water lines with -50 degree antifreeze. |
| | Update trailer onboard documentation and registration (this will be directed and controlled by the MNADR Logistics Specialist and the Facilitator). |
| | |
| SEMIANNUALLY | |
| | Clean and inspect the trailer exterior. |
| | Inventory the utility supply closet to ensure it contains all necessary equipment and supplies noted below: |
| | a. 1 100' heavy-duty water hose and extra hose washers (if there is room to have a second 100' heavy-duty water hose, it is highly recommended that trailer be supplied with two) |
| | b. 1 30' minimum flat discharge grey water drain hose |
| | c. 1 heavy-duty (12 gauge) 100' extension cord <u>PER EACH electrical circuit on the shower trailer</u> |
| | d. 1 fire extinguisher |
| | e. 4 jack landing pads |
| | f. 1 stabilizer jack spin wrench |
| | g. 1 small step ladder to assist in utility closet access |
| | h. 1 6 ton (minimum) bottle jack |
| | i. 1 4-way lug wrench |
| | j. 1 plastic sleeve with <u>current trailer insurance and registration</u> documents |
| | k. 2 sets of wheel chocks |
| | |
| QUARTERLY | |
| | Check the trailer tires and rims (including spare) for any signs of issues or problems. |
| | Check the trailer brakes to ensure they function properly **. |
| | Check the trailer lights to ensure they function properly **. |
| | Check the trailer doors and exterior for any issues. |
| | **Use a Ranger Mutt or 7-way circuit tester for this. |
| | |
| UPON RECOVERY | |
| | Clean trailer exterior and interior shower stalls. |
| | Sweep and mop (or wash out) inside trailer (and utility closet area). |
| | Wipe down all fixtures and shower stalls with germicidal cleaner. |
| | Inspect curtains at each shower stall. |
| | Check to ensure hot water and HVAC units work properly. |
| | Check/clean HVAC filters inside at each HVAC unit. |
| | Inventory and resupply the utility supply closet (see inventory list above under Semiannual Maintenance). |
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WELLS CARGO ULTRALAV FIELD SETUP & OPERATIONS QUICK CHECKLIST

Once the WELLS CARGO ULTRALAV shower trailer has been deployed, the trailer must be prepared for safe usage at the field location. The steps required for proper setup and operation are as follows:

| CHECK | ITEM |
|-------|---|
| | Prior to unhooking from tow vehicle, ensure the trailer is parked in a level and safe location that has a) the necessary access to shore power (20A) circuits within 100' of trailer location as electrical power becomes compromised beyond that distance (and can damage the trailer electrical equipment) and should ALWAYS be less than 100' from the power source, b) a dedicated water supply preferably within 100' of the trailer location, and c) proper grey water drainage access from the rear of the trailer. Use the leveling blocks found in utility closet if additional leveling is required. |
| | Acclimate the trailer shower doors in the desired location for best ongoing access to/from the trailer (consider location of other camp components such as Bunkhouse Trailer, church access or mess tent). |
| | It is advisable to locate the shower trailer on pavement or concrete rather than ground or gravel due to the weight of the trailer, trailer leveling concerns, and the tracking of foreign debris and dirt into the shower stalls. |
| | Put wheel chocks from utility closet at each set of wheels. |
| | Set up shower stall steps by attaching them to the trailer frame. The aluminum steps for each shower stall door are <u>DETACHED FROM THE TRAILER AND ARE CARRIED SEPERATELY WITH THE ULTRALAV TRAILER</u> . These steps should have attached levelers at the bottom of each leg. The steps must be attached to the trailer and leveled by adjusting the screws at bottom of each leg once at the field site location. |
| | Unlock shower stall doors. Place 1 door mat just inside each entry door and 1 at bottom of each set of steps. |
| | Lower the 4 leveling jacks at each corner of the trailer (put a jack pad from utility closet under each leveling jack) and level trailer front-to-back and side-to-side. You want a slight tilt towards the rear of the trailer for proper water drainage. <i>Note: This may require also lowering or raising the tongue jack on the trailer.</i> |
| | Secure the trailer hitch lock and coupler lock for the trailer back onto the trailer. |
| | Turn on the propane tank valve. If the trailer has multiple propane tanks, only 1 tank has to be turned on and the directional valve (located between and at the top of the tanks) is turned on for that tank. |
| | Connect electrical power extension cords to shore power and then to the electrical circuits located on the wall inside the utility closet or located outside and below the utility closet door. The number of electrical circuits will depend upon the size of the shower trailer. The ON/OFF switches for each circuit are located in the utility closet and the toggle switches have built in circuit breakers. If a fault occurs, the circuit can be reset by simply toggling the switch OFF and then ON again. |
| | Most shower trailers have the following electrical components and dedicated circuits: |
| | a. Hot Water Heater – The instant hot water tank runs off the propane at the front of the trailer but has an electric ignitor switch. Typically, the hot water heater and shower stall lights run off the same electrical circuit. The thermostat control for the hot water heater is located on the hot water heater in the utility closet. Normally the hot water thermostat is set to 104 degrees, but this might need to be adjusted down to 101 or 102 degrees for hotter climates. |
| | b. HVAC – The HVAC requires another separate electrical circuit from shore power source. If only 1 circuit is available, the Hot Water Heater and trailer lighting will need to take precedent over connecting the HVAC. If HVAC is being utilized, make sure that the individual exhaust fans in each shower stall are closed. If the HVAC is NOT being utilized, these exhaust fans in each shower stall should be opened for ventilation. Dedicated HVAC thermostats are located in the utility closet and should be set to either HEAT/COOL and the fan set to AUTOMATIC. |
| | c. NOTE: A few shower trailers have dedicated wall heaters in the shower stall areas. <u>These require an additional electrical circuit and are only to be utilized in extremely cold climates.</u> |
| | Connect heavy duty water hose from fresh water source to trailer intake spigot. This spigot is usually located on the outside of the shower trailer near the utility closet. Turn on the water supply at the fresh water source and check the hose and connections for water leaks. If new hose washers are needed, a supply of washers should be available inside the trailer utility closet. Located within the utility closet are a series of water valves which control the water supply to the hot water heater and the hot water supply to each shower stall. Each of these water control valves can be OPENED/CLOSED within the utility closet, thereby controlling the flow of all water into the instant water heater unit and out to each shower stall valve. The water control valve at each shower stall is a timed release valve only – not a hot/cold water mixing valve. NOTE: Most trailers have fresh water holding tanks located in the utility closets. These fresh water tanks are NOT utilized and therefore should not be filled with water. DO NOT open control valves to fill these holding tanks. |
| | Connect the grey water drainage flexible hose to the trailer drain connection. This connection will usually be behind an access panel at the lower back, outside of the shower trailer. Usually, the grey water is drained out of the back of the shower trailer and into a landscape or grassy area, or designated water drainage system. This drainage area needs to be sloped downhill from the trailer and away from potential foot traffic as you do NOT want people having to track through the grey water area. If there is no acceptable outside drainage area and the grey water holding tank in the shower trailer has to be utilized to capture grey water, a plan MUST be put in place to have this grey water holding tank emptied and removed by a disposable waste hauler every few days. Use of the grey water holding tank on board the trailer is HIGHLY DISCOURAGED if it can be avoided. If this holding tank is to be used, there is a water valve located in the trailer utility closet that will divert grey water to the holding tank instead of dumping it out the discharge drain at the back of the trailer. |
| | Transfer the FULL SET of keys for the trailer to the MNADR Site Manager. |
| | Ensure that the MNADR Site Manager thoroughly understands operation of specific water heater, electric lights, circuits, thermostats, propane supply and HVAC unit for this shower trailer. There should also be a dedicated shower trailer Operations Manual specific to that trailer inside the utility closet for reference. MNADR Site Managers must be responsible for maintaining and regulating the water heater thermostats and electrical components within the shower trailer. Others should not have access to the thermostats or utility closet. |

WELLS CARGO ULTRALAV FIELD RECOVERY QUICK CHECKLIST

Prior to the actual physical recovery and relocation of WELLS CARGO ULTRALAV shower trailer, the trailer must be prepared for safe transport from the field location. The steps required for proper transport preparation are as follows:

| CHECK | ITEM |
|-------|---|
| | Ensure the shower trailer interior is properly swept and mopped or washed out. There should be a clean and undamaged shower curtain in each stall and a broom, dustpan, cleaning products and bucket located somewhere inside the trailer. |
| | Ensure that there are 2 clean floor mats located inside each shower stall door of the trailer (mat will be positioned outside at the bottom of the shower stall steps during site setup). |
| | Ensure that the propane tanks are filled, secured with a cable lock, and the tank valves are in the closed position. |
| | Ensure that any water holding tank has been emptied (the discharge valve is usually in the front center frame of the trailer) as this can add thousands of pounds to your total tow weight (water holding tanks on MNADR shower trailers should generally remain empty as we discard all grey water onsite when trailer is in operation). |
| | Ensure all trailer tires (Including the spare tire) are properly inflated. In most cases, the correct air pressure is marked in white chalk on the side of the tire. Check lug nuts on all wheels to ensure they are 'lug wrench' tight. |
| | Ensure that all of the stabilizer scissor jacks are in the fully raised position for travel. |
| | Ensure that each shower entry door is locked. The aluminum steps for each shower stall door are DETACHED FROM THE TRAILER AND MUST BE CARRIED SEPERATELY WITH THE ULTRALAV TRAILER . These steps should have attached levelers at the bottom of each leg. They will be attached to the trailer and leveled at the field site location. |
| | Ensure the trailer supply closet has all necessary equipment and supplies noted below and then LOCK the supply closet door: |
| | a. 1 100' heavy-duty water hose and extra hose washers (if there is room to have a second 100' heavy-duty water hose, it is highly recommended that trailer be supplied with 2) |
| | b. 1 30' minimum flat discharge grey water drain hose |
| | c. 1 heavy-duty (12 gauge) 100' extension cord <u>PER EACH electrical circuit on the shower trailer</u> |
| | d. 1 fire extinguisher |
| | e. 4 stabilizer jack landing pads |
| | f. 1 stabilizer jack spin wrench |
| | g. 1 small step ladder to assist in utility closet access |
| | h. 1 6 ton (minimum) bottle jack |
| | i. 1 4-way lug wrench |
| | j. 1 plastic sleeve with <u>current trailer insurance and registration</u> documents |
| | k. 2 sets of wheel chocks. |
| | Ensure that a proper vehicle is available for safe towing of the WELLS CARGO ULTRALAV Shower Trailer. This trailer weighs approximately 4,000 to 5,000lbs (depending upon specific trailer size) and requires a 1/2 ton or heavier pickup with trailer brake capability to tow. |
| | When connecting trailer to tow vehicle, ensure that the trailer tongue hitch is secured and locked on the ball of the tow vehicle. The coupler lock should be secured and the electrical connection and trailer break-away line are secured to the tow vehicle. |
| | Once trailer is connected to the tow vehicle, ensure that all trailer lights (and trailer brakes, if so equipped) function properly. |
| | Ensure that a FULL SET of keys for the trailer are returned from the MNADR Site Manager and brought back with the trailer. |
| | Once the WELLS CARGO ULTRALAV shower trailer has been recovered and returned to its' home base location, the trailer will need proper cleaning and servicing as detailed in the Maintenance Checklist of the WELLS CARGO ULTRALAV Shower Trailer). |

WELLS CARGO ULTRALAV SHOWER TRAILER MAINTENANCE SCHEDULE

To ensure proper care of our MNADR asset and in order to be properly prepared and ready for rapid field deployment, the WELLS CARGO ULTRALAV shower trailer must be properly serviced, cleaned, and adequately supplied. The schedule required for proper maintenance and cleaning is as follows:

| CHECK | ITEM |
|----------------------|---|
| ANNUALLY | |
| | Check and service axles and bearings (service required will be dictated by mileage and use during the year). |
| | Drain and winterize all water lines with -50 degree antifreeze. |
| | Update trailer onboard documentation and registration (this will be directed and controlled by the MNADR Logistics Specialist and the Facilitator). |
| SEMIANNUALLY | |
| | Clean and inspect the trailer exterior. |
| | Inventory the utility supply closet to ensure it is equipped with the following supplies: |
| | a. 1 100' heavy-duty water hose and extra hose washers (if there is room to have a second 100' heavy-duty water hose, it is highly recommended that trailer be supplied with two) |
| | b. 1 30' minimum flat discharge grey water drain hose |
| | c. 1 heavy-duty (12 gauge) 100' extension cord <u>PER EACH electrical circuit on the shower trailer</u> |
| | d. 1 fire extinguisher |
| | e. 4 jack landing pads |
| | f. 1 stabilizer jack spin wrench |
| | g. 1 small step ladder for accessing utility closet |
| | h. 1 6 ton (minimum) bottle jack |
| | i. 1 4-way lug wrench |
| | j. 1 plastic sleeve with <u>current trailer insurance and registration documents</u> |
| | k. 2 sets of wheel chocks |
| QUARTERLY | |
| | Check the trailer tires and rims (including spare) for any signs of issues or problems. |
| | Check the trailer brakes to ensure they function properly **. |
| | Check the trailer lights to ensure they function properly **. |
| | Check the trailer doors and exterior for any issues. |
| | **Use a Ranger Mutt or 7-way circuit tester for this. |
| UPON RECOVERY | |
| | Clean trailer exterior and interior shower stalls. |
| | Sweep and mop (or wash out) inside trailer (and utility closet area). |
| | Wipe down all fixtures and shower stalls with germicidal cleaner. |
| | Inspect curtains at each shower stall. |
| | Check to ensure hot water and HVAC units work properly. |
| | Check/clean HVAC filters inside at each HVAC unit. |
| | Inventory and resupply the utility supply closet (see inventory list above under Semiannual Maintenance). |

SPECIAL USE CARGO AND FLATBED TRAILER FIELD SETUP & OPERATIONS QUICK CHECKLIST

Once the Various Special Use Cargo and Flatbed trailer has been deployed, the trailer must be prepared for safe usage and storage at the field location. The steps required for proper setup and operation are as follows:

[illegible]

| SUNDOWNER RV SITE MANAGER TRAILER FIELD DEPLOYMENT | |
|--|---|
| CHECK | ITEM |
| | Ensure the RV Site Manager trailer interior living quarters is properly swept and mopped. There should be clean linens, dishes, towels, broom and mop, dustpan, cleaning products and mop bucket located somewhere inside the trailer living quarters. |
| | Ensure interior roof vents are closed, all interior doors are closed, and interior items are properly stowed for travel. |
| | Ensure that there are 2 clean floor mats located inside the trailer main entry door. (1 mat will be positioned outside at the bottom of the main entry steps during site setup). |
| | Ensure that the two trailer batteries (located at front exterior of trailer) are fully charged. |
| | Ensure that the propane tanks are filled, secured with a cable lock, and the tank valves in the closed position. |
| | Ensure that the water holding tanks (grey and black water) have been emptied (the discharge valve for each tank is located on the left side of the trailer, just in front of the tires) as this can add thousands of pounds to your total tow weight (water holding tanks on the Sundowner RV Site Manager trailer should generally remain empty when trailer is not deployed). |
| | Ensure all trailer tires (Including the spare tire) are properly Inflated. In most cases, the correct air pressure is marked in white chalk on the side of the tire. Check lug nuts on all wheels to ensure they are 'lug wrench' tight. |
| | Ensure that all equipment and supplies being transported in the cargo area are secured. |
| | Ensure the trailer awning above main entry door has been pulled in and is secured. |
| | Ensure that all trailer entry steps are pulled out and securely stowed inside the living quarters area and that the main side trailer entry door is locked prior to travel. |
| | Ensure that the onboard generator has fuel and will start and then LOCK the generator access door on the left side of the trailer. |
| | Ensure all slide-outs are fully retracted on the trailer and all exterior doors are locked. |
| | Ensure the trailer supply closet (access door is located on left side of trailer) has all necessary equipment and supplies noted below and then LOCK the supply closet door: |
| | a. 1 100' heavy-duty fresh water hose and extra hose washers (if there is room to have a second 100' heavy-duty water hose, it is highly recommended that trailer be supplied with two) |
| | b. 1 flexible black water and one flexible grey water discharge hose |
| | c. 1 heavy-duty (12 gauge) 100' extension cord PER EACH electrical circuit on the trailer |
| | d. 1 fire extinguisher |
| | e. 2 yellow leveling wheel blocks |
| | f. 1 6 ton (minimum) bottle jack |
| | g. 1 4-way lug wrench |
| | h. 1 Blaylock easy jack for tire changing |
| | i. 1 plastic sleeve with current trailer insurance and registration documents |
| | j. 2 sets of wheel chocks |
| | Ensure that a proper vehicle is available for safe towing of the Sundowner RV Site Manager Trailer. This trailer weighs approximately 10,000lbs to 12,000 lbs and requires a 3/4 ton or heavier pickup with gooseneck hitch and trailer brake capability to tow. |
| | When connecting trailer to tow vehicle, ensure that the trailer gooseneck hitch is secured and locked on the ball of the tow vehicle, the coupler lock should be secured, and the electrical connection, safety chains and trailer break-away line secured to the tow vehicle. |
| | Ensure that the electric front stabilizer jacks are fully retracted and stored in UP position. |
| | Once trailer is connected to the tow vehicle, ensure that all trailer lights (and trailer brakes, if so equipped) function properly. |
| | If Kubota 520 UTV is being transported inside RV Trailer, make sure it is carefully loaded into the garage area at the back of the trailer (load forward into trailer), parked with each tire between the anchoring pads, and ALL tires secured to each anchoring pad with tire straps. |
| | Ensure that a FULL SET of operational keys for the trailer are carried for transfer to the MNADR Site Manager for field use. |
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| SUNDOWNER RV SITE MANAGER FIELD SETUP & OPERATIONS QUICK CHECKLIST | |
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| CHECK | ITEM |
| | Prior to unhooking from tow vehicle, ensure the trailer is parked in a level and safe location that has a) the necessary access to shore power (30A) circuits within 100' of trailer location as electrical power becomes compromised beyond that distance (and can damage the trailer electrical equipment) and should ALWAYS be less than 100' from the power source (Unless you will be utilizing the onboard generator for power needs), b) a dedicated water supply preferably within 100' of the trailer location, and c) proper grey and black water drainage access from the left side of the trailer. Use the leveling blocks found in utility closet if additional leveling is required. |
| | Acclimate the trailer main entry door and rear cargo doors/ramp in the desired location for best ongoing access to/from the trailer. Remember to watch for trees or other obstacles which might interfere with slide-out operation. Consideration of other work site components such as shower or bunkhouse trailers, church access or mess tent may also be a factor. |
| | It is advisable to locate the RV Site Manager trailer on pavement or concrete rather than ground or gravel due to the weight of the trailer, trailer leveling concerns, and the tracking of foreign debris and dirt into the trailer. |
| | Put wheel chocks from utility closet at each set of wheels. |
| | Lower the 2 hydraulic leveling jacks at each front corner of the trailer (put a block of wood from utility closet under each leveling jack) and level trailer front-to-back and side-to-side. You want a slight tilt towards the rear of the trailer for proper water drainage. |
| | Secure the trailer gooseneck hitch locks (there are two steel lockboxes) for the trailer back onto the trailer hitch. |
| | Secure the unattached trailer entry step into the support tubes beneath the main entry door. Place 1 door mat just inside main entry door and 1 at bottom of main entry steps. |
| | Turn on the propane tank valve. Since this trailer has multiple propane tanks, only One tank has to be turned on and the directional valve (located between and at the top of the tanks) turned on for that tank. |
| | Connect electrical power extension cord to shore power and then to the main electrical circuit located on the outside right side trailer wall. This RV Site Manager trailer has the following electrical components: |
| | a. Main Electrical Panel – This panel is located just inside the main side entry door of the trailer and controls electrical power to the trailer and provides information regarding the various electrical components, fuel reserves, and tank reserves. The panel also has light switches to control the living area lighting. The ON/OFF toggle switch for the electrical panel is located at ground level on the wall directly below the Main Electrical Panel and just inside the trailer door. |
| | b. HVAC – The HVAC system. |
| | c. Onboard Generator – The RV Site Manager trailer has an onboard generator capable of providing power to the trailer if shore power is not available or being utilized. This generator has a toggle start switch located on the top of the Main Electrical Panel just inside the main side entry door to the trailer. First, the Main Electrical Panel must be powered 'ON' by using the toggle Main Battery switch at ground level just inside the main side entry door to the trailer. Then the Generator Start toggle switch should be held 'ON' for a few seconds until the generator is automatically primed and starts. The generator light will illuminate on the main electrical panel once the generator is started. The generator also has a manual start switch outside at the lower front of the generator itself. |
| | d. Hot Water Heater – The instant hot water tank runs off the propane tanks at the front of the trailer but has an electric ignitor switch. Typically, the hot water heater and shower stall lights run off the same electrical circuit. The thermostat control for the hot water heater is located on the hot water heater in the utility closet. |
| | e. Kitchen Appliances – The refrigerator and stove both run off the propane tanks at the front of the trailer. |
| | Connect heavy duty water hose from fresh water source to trailer intake spigot. This spigot is usually located on the outside of the trailer. Turn on the water supply at the fresh water source and check the hose and connections for water leaks. If new hose washers are needed, a supply of washers should be available inside the trailer utility closet. Located within the inside utility closet are a series of water valves which control the water supply to the hot water heater and the water supply to other faucets in the trailer. Each of these water control valves can be OPENED/CLOSED, thereby controlling the flow of all water into the instant water heater unit and out to other faucets. |
| | NOTE: This trailer has a fresh water holding tank located under the trailer. This fresh water tank would NOT normally be utilized and therefore should not be filled with water. DO NOT open control valves to fill this holding tank. |
| | Connect the grey water drainage flexible hose to the trailer drain connection. This connection is located outside of the trailer in front of the left side wheels. Pull the T Valve to open this drain and allow drainage water to flow out through the hose. Usually, the grey water is drained out through this flexible hose and into a landscape or grassy area, or designated water drainage system. This drainage area needs to be sloped downhill from the trailer and away from potential foot traffic as you do NOT want people having to track through the grey water area. If there is no acceptable outside drainage area and the grey water holding tank in the RV Site Manager trailer has to be utilized to capture grey water, a plan MUST be put in place to have this grey water holding tank emptied and removed by a disposable waste hauler every few days. Use of the grey water holding tank on board the trailer is HIGHLY DISCOURAGED if it can be avoided. |
| | Transfer the FULL SET of keys for the trailer to the MNADR Site Manager. |
| | Ensure that the MNADR Site Manager thoroughly understands operation of specific water heater, electric lights, power circuits, thermostats, propane supply and HVAC unit for this RV Site Manager trailer. There should also be a dedicated RV Site Manager Trailer Operations Manual specific to that trailer inside the utility closet for reference. MNADR Site Managers must be responsible for maintaining and regulating the water heater thermostats and electrical components within the RV Site Manager trailer. |

| SUNDOWNER RV SITE MANAGER TRAILER FIELD RECOVERY QUICK CHECKLIST | |
|--|--|
| CHECK | |
| | Ensure the RV Site Manager trailer interior living quarters is properly swept and mopped. There should be linens, dishes, towels, broom and mop, dustpan, cleaning products and mop bucket located somewhere inside the trailer living quarters. |
| | Ensure interior roof vents are closed, all interior doors are closed, and interior items are properly stowed for travel. |
| | Ensure that there are 2 floor mats located inside the trailer main entry door. (1 mat will be positioned outside at the bottom of the main entry steps during site setup). |
| | Ensure that the two trailer batteries (located at the front exterior of the trailer) are fully charged. |
| | Ensure that the propane tanks are secured with a cable lock, and the tank valves in the closed position. |
| | Ensure that the water holding tanks (grey and black water) have been emptied (the discharge valve for each tank is located on the left side of the trailer, just in front of the tires) as this can add thousands of pounds to your total tow weight (water holding tanks on the Sundowner RV Site Manager trailer should generally remain empty when trailer is not deployed). Add deodorizer to empty water tanks. |
| | Ensure all trailer tires (Including the spare tire) are properly Inflated. In most cases, the correct air pressure is marked in white chalk on the side of the tire. Check lug nuts on all wheels to ensure they are 'lug wrench' tight. |
| | Ensure that all equipment and supplies being transported in the cargo area are secured. |
| | Ensure the trailer awning above main entry door has been pulled in and is secured. |
| | Ensure that all trailer entry steps are pulled out and securely stowed inside the living quarters area and that the main side trailer entry door is locked prior to travel. |
| | Ensure that the onboard generator has fuel and will start and then LOCK the generator access door on the left side of the trailer. |
| | Ensure all slide-outs are fully retracted on the trailer and all exterior doors are locked. |
| | Ensure the trailer supply closet (access door is located on left side of trailer) has all necessary equipment and supplies noted below and then LOCK the supply closet door. |
| | a. 1 100' heavy-duty fresh water hose and extra hose washers (if there is room to have a second 100' heavy-duty water hose, it is highly recommended that trailer be supplied with two) |
| | b. 1 flexible black water and one flexible grey water discharge hose |
| | c. 1 heavy-duty (12 gauge) 100' extension cord PER EACH electrical circuit on the trailer |
| | d. 1 fire extinguisher |
| | e. 2 yellow leveling wheel blocks |
| | f. 1 6 ton (minimum) bottle jack |
| | g. 1 4-way lug wrench |
| | h. 1 Blaylock easy jack for tire changing |
| | i. 1 plastic sleeve with <u>current trailer insurance and registration</u> documents |
| | j. 2 sets of wheel chocks. |
| | Ensure that a proper vehicle is available for safe towing of the Sundowner RV Site Manager Trailer. This trailer weighs approximately 10,000lbs to 12,000 lbs and requires a 3/4 ton or heavier pickup with gooseneck hitch and trailer brake capability to tow. |
| | When connecting trailer to tow vehicle, ensure that the trailer gooseneck hitch is secured and locked on the ball of the tow vehicle, the coupler lock should be secured, and the electrical connection, safety chains and trailer break-away line secured to the tow vehicle. |
| | Ensure that the electric front stabilizer jacks are fully retracted and stored in UP position. |
| | Once trailer is connected to the tow vehicle, ensure that all trailer lights (and trailer brakes, if so equipped) function properly. Make sure wheel chocks are properly stowed in tool box. |
| | If Kubota 520 UTV is being transported inside RV Trailer, make sure it is carefully loaded into the garage area at the back of the trailer (load forward into trailer), parked with each tire between the anchoring pads, and ALL tires secured to each anchoring pad with tire straps. |
| | Ensure that a FULL SET of keys for the trailer are received for transfer from the MNADR Site Manager. |
| | Once the Sundowner RV Site Manager trailer has been recovered and returned to its' home base location, the trailer will need proper cleaning and servicing as detailed in Maintenance Checklist for the Special Use Diesel Fuel Trailer. |

| SUNDOWNER RV SITE MANAGER TRAILER MAINTENANCE SCHEDULE | |
|--|---|
| CHECK | ITEM |
| ANNUALLY | |
| | Check and service axles and bearings (service required will be dictated by mileage and use during the year). |
| | Drain and winterize all water lines with -50 degree antifreeze. |
| | Update trailer onboard documentation and registration (this will be directed and controlled by the MNADR Logistics Specialist and the Facilitator). |
| SEMIANNUALLY | |
| | Clean and inspect exterior. |
| | Inventory the utility supply closet for general supplies below: |
| | a. 1 100' heavy-duty fresh water hose and extra hose washers (if there is room to have a second 100' heavy-duty water hose, it is highly recommended that trailer be supplied with two) |
| | b. 1 flexible black water and one flexible grey water discharge hose |
| | c. 1 heavy-duty (12 gauge) 100' extension cord PER EACH electrical circuit on the trailer |
| | d. 1 fire extinguisher |
| | e. 2 yellow leveling wheel blocks |
| | f. 1 6 ton (minimum) bottle jack |
| | g. 1 4-way lug wrench |
| | h. 1 Blaylock easy jack for tire changing |
| | i. 1 plastic sleeve with current trailer insurance and registration documents |
| | j. 2 sets of wheel chocks |
| QUARTERLY | |
| | Check the trailer tires and rims (including spare) for any signs of issues or problems. |
| | Check the hydraulic trailer jacks to ensure they function and the batteries are charged. |
| | Check the trailer brakes to ensure they function properly **. |
| | Check the trailer lights to ensure they function properly **. |
| | Check the trailer doors and exterior for any issues. |
| | **Use a Ranger Mutt or 7-way circuit tester |
| UPON RECOVERY | |
| | Clean trailer exterior, cargo area and interior living quarters. |
| | Sweep and mop (or wash out) inside trailer cargo area and living quarters (and utility closet area). |
| | Wipe down all fixtures in living quarters with germicidal. |
| | Inspect curtains at each shower. |
| | Check to ensure onboard generator, interior lights and HVAC units work properly. |
| | Check/clean HVAC filters inside at each HVAC unit |
| | Inventory and resupply the utility supply closet (see inventory list above under Semiannual Maintenance). |

SPECIAL USE DIESEL GENERATOR TRAILER MAINTENANCE SCHEDULE

To ensure proper care of our MNADR asset and in order to be properly prepared and ready for rapid field deployment, the Special Use Diesel Generator Trailer must be properly serviced, cleaned and adequately supplied. The schedule required for proper maintenance and cleaning is as follows:

| CHECK | ITEM |
|---------------|--|
| ANNUALLY | |
| | Inspect and service axles and bearings (dictated by mileage and use). |
| | Update trailer onboard documentation and registration (this will be directed and controlled by the MNADR Logistics Specialist and the Facilitator). |
| | |
| SEMIANNUALLY | |
| | Clean and inspect the trailer exterior and generator diesel motor, generator wires, and connections. |
| | Inventory the trailer tool box for general required supplies noted below: |
| | a. 1 6 ton (minimum) bottle jack |
| | b. 1 4-way lug wrench |
| | c. Rubberized safety gloves and first aid kit |
| | d. 1 plastic sleeve with <u>current trailer insurance and registration</u> documents |
| | e. Collapsible safety cones |
| | f. 2 sets of wheel chocks |
| | |
| QUARTERLY | |
| | Check operating hours and ensure that corresponding schedule of maintenance required has been performed on the generator motor (refer to Schedule of Required Maintenance for Operation of Special Use Diesel Generator Trailer below). |
| | Check the trailer tires and rims (including spare) for any signs of issues or problems. |
| | Ensure brakes are properly functioning**. |
| | Check brake, turn signal, and running light for proper functioning**. |
| | **Use a Ranger Mutt or 7-way circuit tester |
| | |
| UPON RECOVERY | |
| | Clean and inspect the trailer exterior and generator diesel motor, generator wires, and connections. |
| | Check operating hours and ensure that corresponding schedule of maintenance required has been performed on the generator motor (refer to Schedule of Required Maintenance for Operation of Special Use Diesel Generator Trailer below). |
| | Inventory the trailer tool box for general required supplies (see inventory list above under Semiannual Maintenance). |
| | |
| | |
| | |

Schedule of Required Maintenance for Operation of Diesel Generator Trailer

| | Daily | 50 Hrs or 2 weeks | 250 Hrs | 600 Hrs or 12 Mo | 1200 Hrs or 24 Mo | 2000 Hrs | Other |
|---|-------|-------------------------|---------|------------------------|-------------------------|-------------|-------|
| Check engine oil and coolant level | - | | | | | | |
| Check engine air filter gauge & air cleaner dust cap * | - | | | | | | |
| Visual walkaround inspection | - | | | | | | |
| Check tire inflation, tread wear and lug nuts before towing | - | | | | | | |
| Check fuel filter | | - | | | | | |
| Drain containment system | | - | | | | | |
| Service the battery | | | - | | | | |
| Change engine oil and replace oil filter** | | | - | | | | |
| Clean unit inside and out | | | - | | | | |
| Check air intake hoses, connections, and system | | | | - | | | |
| Replace fuel filter element | | | | - | | | |
| Check automatic belt tensioner and belt wear | | | | - | | | |
| Check cooling system | | | | - | | | |
| Perform coolant solution analysis & add SCA's | | | | - | | | |
| Grease axle | | | | - | | | |
| Pressure test cooling system | | | | | - | | |
| Flush cooling system*** | | | | | - | | |
| Check and adjust engine valve clearance | | | | | | - | |
| Check brake fluid level in trailer at least monthly | | | | | | | - |
| Replace crankcase ventilation filter every 750 hours | | | | | | | - |

*Replace the air filter cartridge when yellow indicator of the engine air filter gauge reaches the red line.

SPECIAL USE MUD OUT TRAILER FIELD SETUP & OPERATIONS QUICK CHECKLIST

Once the Special Use Mud Out trailer has been deployed, the trailer must be prepared for safe usage and storage at the field location. The steps required for proper setup and operation are as follows:

[illegible]

Lug Nut Torque Specifications

| Stud Size | Lug Nut Type | Torque Specifications | Wheel Size & Type | Wheel Material |
|-----------|------------------------------------|-----------------------|--------------------------|----------------|
| 7/16" | Coned | 55-65 ft.-lb. | 8"-14" | Steel/Aluminum |
| 1/2" | Coned | 75-85 ft.-lb. | 8"-14" | Steel/Aluminum |
| 9/16" | Coned | 95-115 ft.-lb. | 8"-14" | Steel/Aluminum |
| 12mm | Coned | 70-80 ft.-lb. | 8"-14" | Steel/Aluminum |
| 14mm | Coned | 85-95 ft.-lb. | 8"-14" | Steel/Aluminum |
| 1/2" | Coned | 90-120 ft.-lb. | 15" | Steel |
| 1/2" | Coned | 90-120 ft.-lb. | 16" | Steel |
| 9/16" | Coned | 120-140 ft.-lb. | 16" | Steel |
| 5/8" | Coned w/ Wheel Clamp Ring | 190-210 ft.-lb. | 17.5" Single or 16" Dual | Steel |
| 5/8" | Flanged Nuts (Non-Rotating Flange) | 275-325 ft.-lb. | 17.5" Single or 16" Dual | Steel |
| 5/8" | Flanged Nuts (Rotating Flange) | 190-210 ft.-lb. | 17.5" Single or 16" Dual | Steel |
| 1/2" | Coned | 90-100 ft.-lb. | 15" | Aluminum |
| 1/2" | Coned | 90-100 ft.-lb. | 16" | Aluminum |
| 9/16" | Coned | 120-140 ft.-lb. | 16" | Aluminum |
| 9/16" | Coned | 130-150 ft.-lb. | 17.5" | Aluminum |
| 5/8" | Coned | 140-160 ft.-lb. | 17.5" | Aluminum |
| 5/8" | Flanged Nuts (Rotating Flange) | 150 ft.-lb. | 16" | Aluminum |