NAM GSE Maintenance Manual

Process Owner: NAM Ground Support Equipment

Version 5.2 – Effective 12 JUN 2024

Contents

Chapter 1 – General Policies

1.1 Purpose

This chapter covers general policies applicable to GSE maintenance in the WFS North America network.

1.2 Policies

1.2.1 Ownership

Each General/Cost Center Manager (or on-site GSE Management if applicable) shall be responsible for the administration of the Preventive Maintenance (PM) Program, repairs and appearance of the ground equipment assigned to the station. The HDQ Maintenance Department shall have oversight; provide direction and assistance as required.

1.2.2 Third Party Maintenance

In a station where there are no maintenance management personnel assigned or the maintenance facilities are limited, the General/Cost Center Manager is responsible for arranging to have work accomplished and manage the third-party vendor per the WFS maintenance program. Contact the HDQ Maintenance Department for any assistance or direction required.

1.2.2a. Any contracts with outside repair third party agencies shall be coordinated through and approved by the HDQ Maintenance Department.

1.2.2b. The determination of work to be done by WFS and work to be outsourced to outside agencies must comply with WFS policies and guidelines. The decision shall be based upon the economic scenario, with consideration given to whichever is more practical and yet still meeting minimum company standards and operational guidelines.

1.2.3 Customer Provided Equipment

Where customer provided equipment is used and maintained by WFS or third-party vendors, equipment shall be maintained to the customer's standards. It is the responsibility of the General/Cost Center Manager to ensure proper communication of any GSE related issues and routine GSE information in a timely manner to local GSE personnel or HDQ Maintenance. Preventive Maintenance Inspection (PMI) information shall be provided to HDQ maintenance monthly.

1.2.4 GSE Reporting

It is the responsibility of the General/Cost Center Manager to ensure proper communication of any GSE related issues and routine GSE information in a timely manner to local GSE personnel or HDQ Maintenance. It is also the responsibility of the General/Cost Center Manager to ensure proper and timely communication of critical GSE breakdown events. For non-Dossier stations, see Chapter 2 – 2.2.2 Equipment Condition Report for detailed instructions. For Dossier stations, see Addendum 4 – Section 2 Equipment Reporting Procedures for detailed instructions.

1.2.5 Modification of GSE Equipment

NO GSE equipment shall be modified without formal approval from the Director of GSE and above.

Unless there is some overriding reason, WFS shall not modify equipment from the way in which the manufacturer provided it. The reasons we do not modify equipment include:

- When equipment is modified, all liabilities of the manufacturer are voided. This could make WFS liable for any injuries or incident claims that might arise, even if the modification was not at fault.
- Equipment should be kept uniform at all stations. This means that all equipment is the same, uses the same parts, and can be discussed in the same manner.
- If a problem should arise with a piece of equipment that has been modified, troubleshooting is more difficult to carry out, or could be impossible.
- Modification could, unknowingly, result in the elimination of a safety feature that was built into the unit. WFS does not want to create a safety hazard that might cause an incident or injury. In addition, we may be cited for modifications if they have not been approved and tested.

If you think you have an idea that might be beneficial and improve the equipment, please follow the normal procedure of presenting the proposed modification to the HDQ Maintenance Department for consideration. DO NOT make a modification without proper approval and authorization.

1.2.6 GSE Appearance

All WFS equipment shall be kept in compliance with the GSE appearance standards outlined in Addendum 6 – GSE Appearance and Branding. See Addendum 6 for detailed instructions on decal placement and paint standards for each asset type.

1.2.7 Parts and Supplies Procurement

Parts and supplies for GSE repair shall be purchased in accordance with applicable WFS P-Card and Purchasing policies and with Operations approval where applicable. All GSE related parts and supplies purchases over limits defined in Addendum 1 – shall have an “Appropriation Request” document completed and approved by HDQ Maintenance prior to purchase (unless exigent circumstances apply and pre-authorization is given by the Director of GSE or above). Dossier 7 stations shall also follow the procedures outlined in Addendum 4 – Section 6 Purchase Orders and Section 7 Parts Inventory Management.

1.2.8 Document Retention

All documents specified in Chapter 2, Chapter 3, Chapter 7, Addendum 3 and Addendum 4 shall be retained according to the outlined procedures within those chapters or addendums.

1.2.9 Non-Performing Asset

From time to time, equipment that is at a station but not required in the operation itself, shall be placed on the NPA (Non-Performing Asset) list. Once on that list, the equipment may remain at the station or be moved to another station where it is needed. When NPA (Surplus) equipment remains at a station, it is the responsibility of the station to keep that equipment ready for operation – whether at the current station or some other station – so that it can be put into use immediately when needed. It also means that the equipment must be test run periodically to ensure it is in running order.

The Station is responsible for knowing what equipment is on contract, on which contract, and what equipment is NPA. Any NPA Equipment must be red tagged (see Chapter 5 - 5.2.1c Non-Performing Asset) and the red tag must have the NPA level on it (see below).

There are three levels of NPA:

- NPA-As listed above.
- NPA-repair- Not on contract, needs repair prior to deployment. (Must be disabled).
- NPA-Scrap- Not on contract and has outlived useful life and to be scrapped (Must be disabled)

If there are any questions regarding maintenance of NPA equipment, please consult with the HDQ Maintenance Department for further details and clarification.

Chapter 2 – Reports/Forms

2.1 Purpose

This Chapter covers reports and forms used in the repair or inspection of GSE equipment in the WFS North America network. The reports referenced here are available on the WFS Intranet and GSE Teams Library.

2.2 Reports/Forms Procedures

2.2.1 Pre/Post Inspection

Before each shift, each operator of a piece of equipment shall inspect the equipment that he or she will be operating. This is a Pre-trip Inspection. After each shift, each operator shall inspect the equipment that he/she was operating. This is a post-trip inspection. ALL operators shall perform Pre and Post trip inspections. Any discrepancies noted in the Equipment Condition Report, and initialed by the operator making the notation (For Dossier stations see Addendum 4. If the condition is a safety item, the unit is to be red tagged to seek guidance from Maintenance immediately.

2.2.2 Equipment Condition Report

The ECR allows the mechanics to be aware of any discrepancies that occur with equipment between PMI's. Each station shall maintain an ECR for each shift worked. It shall list ALL powered equipment for that station, and any discrepancies found during that shift. Non-powered equipment is listed ONLY as an exception, when and if discrepancies are found, to ensure prompt repair.

This report is checked for completeness by the Management, signed at the end of each shift and emailed to maintenance. The mechanic shall obtain the ECR upon the start of his/her shift to determine work needing to be done. All discrepancies shall be repaired daily, or scheduled for later repair, by the mechanic or GM/Station manager. The mechanic or Maintenance Manger shall acknowledge repair or status at the end of each working day. The ECR's shall be kept on file for one year after their date.

Any equipment condition that requires removal from service until the repair is performed must be disabled and tagged with a red tag to ensure identification as out of service, to prevent use until repaired. See Chapter 5 – 5.2 Red Tag Program.

Dossier 7 stations are exempt from this process and shall follow the procedures outlined in Addendum 4 – Section 2 Equipment Issue Reporting Procedures.

2.2.3 Equipment Breakdown Notification

This detailed notification is to be completed when any critical equipment breaks down during any operation, whether causing a delay in departure/operations or not. Critical equipment is defined by the size and scope of the operation regarding failure of equipment severely impacting ability to meet operational demand. The purpose of this notification is to assist in responding to equipment situations, and customer requests following an operational delay or near miss delay. The notification should be completed immediately and e-mailed to the HDQ Maintenance Department, regional Maintenance manager, and operational VP as soon as practical. The manner of reporting will vary station to station. For Dossier stations see Addendum 4.

2.2.4 Weekly Out of Service Log

Each location is to send weekly out of service tracking spreadsheet to designated oversite and retained on file for three years. If all GSE is operational the weekly message is still to be sent noting no items out of service. This report is due every Monday at 1700 Central Standard Time. The email subject line shall begin with "STATION CODE OOS" (i.e. DFW OOS).

2.2.5 Monthly Container Loader/Towbar Checklist

Every month all Container Loaders and Towbars shall be inspected for critical structural and safety related items between PMI. The Checklist is to be sent to designated oversight and retained on file for three years. This check is ancillary to the scheduled PMI. For Dossier stations see Addendum 4.

2.2.6 PM Tracking Spreadsheet

The "PM Tracking Spreadsheet" is a Microsoft Excel file designed to track powered and non-powered equipment preventative maintenance inspections (PMI's) in the station. Each time a PMI is completed, the PMI tracker shall be updated with the engine hours or odometer (whichever is applicable, powered equipment only) and the date of completion. The spreadsheet shall track if the equipment is in or out of compliance based on the intervals specified in Chapter 5 depending on the group the equipment is in. This report shall be sent to oversight personnel on a periodic basis depending on the location. For Dossier stations, this form of tracking shall not be used (unless station maintains customer supplied equipment), see Addendum 4 – Section 4 PMI Tracking.

2.2.7 Weekly Equipment Check

This inspection and form shall be completed once per week. The inspection consists of inspecting the unit to ensure that all critical functions are operational and that the correct fluid levels are present where required. This form shall be retained on file for a minimum of 120 days.

2.2.7a - For Stations that outsource GSE maintenance - Station Management can choose to have a vendor do the Weekly Equipment Check or responsible WFS employees can be trained to complete the Weekly Equipment Check. Performing the Weekly Equipment Check in-house is preferred if it can be done properly, safely and efficiently.

2.2.8 Fuel Log

Each station shall maintain an accurate account of fuel usage. If WFS equipment is fueled by an outside vendor, they shall be required to provide us with that same information each time they fuel our equipment.

2.2.9 Engine Failure Report

This form should be completed anytime a piece of GSE has an engine failure. The report should be emailed to the HDQ Maintenance Department and regional manager as soon as it has been completed. This is to ensure that proper recordkeeping and timely authorization for repairs is done.

2.2.10 Daily Timecard

The Daily Timecard is used to record a GSE mechanic's repair hours and repair details. The following procedures shall be used:

The mechanic(s) shall complete a Daily Timecard (and Work Order) if applicable for all work performed on WFS GSE. Dossier stations are exempt from this requirement (see Addendum 4 – Task Management).

All work completed is to be entered into a CMMS (Computerized Maintenance Management System). See Addendum 4 – 5.2 Task Management and Addendum 3 – E-Maint X3 CMMS System for entry procedures.

2.2.10a Outsourced GSE Entry

All stations that outsource their GSE maintenance shall complete a Work Order on behalf of the third party. The station should request a copy of the third-party work order and then transfer the data to the WFS work order. The WFS work order, third party work order, and the invoice shall be sent electronically daily or regularly to HDQ Maintenance.

2.2.11 Preventive Maintenance Inspection Form

The Preventive Maintenance Inspection (PMI) Form is used to record all required PMI's on WFS equipment. This form shall be completed each time a WFS mechanic completes a PMI on WFS equipment. The procedures on the form shall meet or exceed equipment OEM requirements. The form shall be filed according to the document retention and organization requirements in Chapter 3 – Maintenance Documentation. See Chapter 5 – 5.3.1 Preventive Maintenance Program for detailed PMI information.

Chapter 3 – Maintenance Documentation

3.1 Purpose

This chapter describes the organization and retention of documents and forms used in the GSE organization.

3.2 Document Organization

3.2.1 Paper File Setup

The following setup of files and paperwork is the mandatory minimum in each station. The station shall do the following:

3.2.1a Powered Equipment

Establish a hanging file for each piece of Powered Equipment: This is required for all locations regardless of if maintenance is outsourced or not.

1. Identify the file by Company Asset ID. i.e.; BTT-100, PBT-057, etc.
2. Each file shall contain (a) all completed Work Orders and (b) PMI Forms from the last 2 years

3.2.1b Non-Powered Equipment

Establish a hanging file for each group of like Non-Powered Equipment pieces:

1. Identify the file by the group Equipment Type. i.e.; Towbar, Bag cart, LD7 Dolly, etc.
2. Each file shall contain (a) all completed Work Orders and (b) the latest PM Sign-Off Sheet with instructions.

3.2.1c General Maintenance Documents and Forms

The following shall be established for documents that do not refer to a specific unit:

1. Establish a file or loose-leaf binder for master copies of the PMI forms.
2. Establish separate files for completed Weekly Equipment Check Forms.

Chapter 4 – Intentionally Blank

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Chapter 5 – General Maintenance Procedures

5.1 Purpose

This Chapter contains general procedures to be followed regarding maintenance of WFS equipment.

5.2 Red Tag Program

5.2.1 Red Tag Program Purpose

The Red Tag Program ensures that equipment is not used when it is unsafe to operate or when it cannot perform it's intended operational function(s).

5.2.1a Adding a Red Tag

When GSE is unsafe to operate or is broken in such a way that it cannot perform its operational function(s), the equipment should have a tag affixed in a location clearly visible to a potential operator indicating that it is Out of Service. Once tagged, the equipment shall not be operated except to diagnose and repair the issue(s) by qualified personnel. If a piece of equipment is red tagged, it should be reported on the ECR or as a Dossier 7 Work Request (See Chapter 2 - 2.2.2 Equipment Condition Report, for Dossier 7 stations see Addendum 4 – Section 2 Equipment Issue Reporting Procedures. The equipment should also be added to the Weekly Out of Service Log (for non-Dossier 7 stations see Chapter 2 - 2.2.4 Weekly Out of Service Log, for Dossier 7 stations see Addendum 4 – 5.3.2 Out of Service Equipment).

5.2.1b Removing a Red Tag

Red Tags can only be removed by qualified GSE personnel. The Red Tag should only be removed when the repair(s) are completed, and the equipment is safe to operate. When the Red Tag is removed, the equipment should be removed from the ECR (see Chapter 2 - 2.2.2 Equipment Condition Report) and from the Weekly Out of Service Log (see Chapter 2 – 2.2.4 Weekly Out of Service Log). For Dossier 7 Stations see Addendum 4 – Section 5 Work Request/Work Order Management.

5.2.1c Non-Performing Asset

Any Non-Performing Asset shall be red tagged. The red tag shall not be removed until the unit has been assigned to a new or existing contract and the unit has undergone the next PMI in the rotation (see Chapter 5 – 5.3.2 – PMI Intervals and Rotation). See Chapter 1 – 1.2.10 Non-Performing Asset for information on NPA Equipment.

5.3 Preventive Maintenance Program

5.3.1 Preventive Maintenance Program Definition

The Preventive Maintenance Program consists of a series of inspections to ensure that equipment is in optimal condition during equipment operation and use. WFS Preventive Maintenance Inspections shall meet or exceed Original Equipment Manufacturer specifications. Preventive Maintenance Inspections are also referred to as "PMIs".

5.3.2 PMI Intervals and Rotation

All equipment shall have a day-based PM interval. Group 1 equipment categories shall also have "engine hours" based PM intervals.

5.3.2a Equipment Intervals

- Group 1

- Bobtails, AC (AC/Heat) Carts and GPU's
- A PMI – 90 days or 300 engine hours, whichever comes first.
- B PMI – 180 days or 600 engine hours, whichever comes first
- Asset Types in this group shall be assessed periodically as required by changing operation conditions, usage patterns or fleet makeup.

- Group 2
  - All other active GSE not in Group 1, Group 3 or Group 4
  - A PMI – 90 days
  - B PMI – 180 days
- Group 3
  - All non-powered equipment except Towbars, see Chapter 2 2.2.5 Monthly Container Loader/Towbar Checklist for Towbar information.
  - A PMI – 365 days
- Group 4
  - Non-Performing Assets (NPA)
  - An NPA unit shall be tagged out and taken out of the PMI rotation while not in use. If the unit is returned to service, the next PMI in the PMI rotation shall be completed before use. See Chapter 1 – Non-Performing Asset and Chapter 5 – 5.2 Red Tag Program.

5.2.3b Rotation

PMI's shall be completed in an "A-B" rotation. The equipment's first PMI shall be an "A" PMI. When multiple PMIs are due on a piece of equipment, the highest PMI shall be completed. Two "B" PMIs in a row are acceptable in the rotation.

5.3.3 PMI Tracking

All PMI's shall be tracked using the PMI Tracking Spreadsheet (see Chapter 2 - 2.2.6 PM Tracking Spreadsheet). Dossier 7 stations are exempt from this requirement (see Addendum 4 – Section 4 PMI Tracking).

5.3.4 PMI Documentation

All PMI files shall be kept according to Chapter 3 - 3.2 Document Organization. All PMI forms shall be filled out according to Chapter 2 - 2.2.11 Preventive Maintenance Inspection Form and Chapter 2 -2.2.5 Monthly Container Loader/Towbar Checklist. For Dossier 7 Stations see Addendum 4 – Section 4 PMI Tracking.

5.3.5 Updates to PMI Procedures and Documentation

PMI procedures and documentation shall be reviewed periodically by HDQ Maintenance for applicability to the current fleet. Changes to PMI procedures and documents must be approved by Director of GSE or above. Changes shall be distributed to maintenance personnel after approval.

5.4 High Value Part and Tool Shipping/Storage

5.4.1 High Value Tool Storage

All tools that are owned by WFS and cost over $500 USD must be stored in a secure location. This requirement includes diagnostic laptops/accessories and load banks.

5.4.2 High Value Part Storage

All parts that have a value over $500 USD must be stored in a secure location.

5.4.3 Tool Shipping

5.4.3a Diagnostic Laptop Shipping

All diagnostic laptops must be shipped using FEDEX or UPS. The insured value must be $4,000 USD.

5.4.3b Load Bank Shipping

Load banks must be shipped using FEDEX or UPS. The insured value must be $10,000.

Chapter 6 – Safety Procedures

6.1 Purpose

This Chapter outlines general safety guidelines that should be followed during any GSE repair or inspection. This Chapter includes Hot Work Permitting and Lockout-Tagout procedures and policies.

6.2 General Safety Procedures

6.2.1 Local, State and Federal Safety Regulations

During any GSE repair or inspection, all Local, State and Federal safety rules and regulations shall be followed, in addition to those listed below.

6.2.2 Personal Protective Equipment (PPE)

PPE shall be used at all times when conducting repairs on GSE equipment, when applicable or when in operational areas.

6.2.3 General Shop Safety

6.2.3a Shop Cleanliness

The GSE repair facility(s) shall be kept clean. The floor must be kept clean of spills, dirt and trip hazards. Time should be allowed by management for shop cleaning daily.

6.2.3b Lift Equipment Labeling

All equipment used for lifting GSE (jack stands, jacks, 4-pole lifts etc.) must be clearly labeled with the Original Equipment Manufacturer (OEM) load bearing capacity of the equipment.

6.2.3c SDS/HAZCOM

WFS uses a third-party management system for SDS documentation. SDS posters must be displayed in any GSE repair facility. All chemicals should be properly labeled according to local, state and federal rules and regulations. See Safety and Training guidelines for applicability and detailed procedures on MSDS. All chemicals should be stored according to local, state and federal rules and regulations. See 6.2.3d Flammable Chemical Storage for information on storing flammable chemicals and 6.2.3e Battery Charging/Storage for battery charging and storage requirements.

6.2.3d Flammable Chemical Storage

All flammable chemicals must be stored in an NFPA 30 compliant storage cabinet. The bungs of the cabinet should be present and able to be turned by hand. Corrosive fluids or corrosive aerosols should never be stored inside the Flammable Chemical Storage cabinet. The Flammable Chemical Storage cabinet shall be placed in a well-ventilated area away from open flame sources. Enough clearance between the flammable cabinet and any surrounding objects should be given to allow access to the fire bungs with a fire suppression device.

6.2.3e Battery Charging/Storage

Batteries must be stored off the ground in a dry and well-ventilated area. Battery charging stations must be in a dry and well-ventilated area. The battery charging area shall have a face shield, apron, corrosive resistant gloves and acid neutralizer present and easily reachable.

6.2.3f Fire Extinguishers

A GSE repair facility must have fire extinguisher(s) present according to NFPA 10 and local, state and federal regulations. WFS requires an annual inspection of fire extinguishers by an outside service company and an internal monthly check. The inspection(s) must be documented on the fire extinguisher. All fire extinguishers must have a current inspection tag present.

6.2.3g Eye Wash Station

A GSE repair facility must have an eye-wash station(s) available. If a portable saline type of eye-wash station is used, it must have a current sell-by date. If the date has expired, the eye-wash saline must be replaced. If a permanent type of eye-wash station is used, it should be inspected according to local or state regulations where applicable.

6.2.3h Extension Cords/Power Cords

All power extension cords should be of the proper rating for use. Cords should be checked regularly for damage or wear and replaced if necessary. Extension cords should not be used as a permanent power source. Extension cords should be stored outside of any walking paths or work areas when not in use. Extension cords used in WFS facilities should be of the 3-wire with a ground type.

6.2.3i Air Hoses

All air hoses should be of the proper rating for use. Hoses should be checked regularly for damage or wear and replaced if necessary. Hoses should be stored outside of any walking paths or work areas when not in use.

6.2.3j Exit Doors

All exit doors should be properly marked according to local, state and federal rules and regulations where applicable. Exit doors should remain free of blockage that causes a trip hazard or prevents proper use of the door.

6.2.3k Electrical Panels

Electrical panels should be properly marked according to local, state and federal rules and regulations. Electrical panels should have at least 36 inches (3 feet) of clearance in front of them.

6.2.3l Stationary Maintenance Equipment

Stationary Maintenance Equipment (bench grinders, drill presses, tire machines, etc.) must be installed and maintained according to OEM specifications.

6.2.3m Bench Grinders

Bench grinders must be installed with the shield and rest according to OEM specifications.

6.2.4 Lockout-Tag Out

6.2.4a Purpose

The purpose of this written program is compliance with the OSHA General Rules and Regulations 29 CFR 1910.147 regarding the control of hazardous energy.

The purpose of the standard is to prevent workplace injuries that might result from the unexpected energization or startup of machines and equipment, or the release of stored energy. This is accomplished through this written program, including energy control procedures, employee training, and periodic inspections to ensure that before maintenance

and service is performed, machines and equipment that could unexpectedly startup, become energized, or release stored energy, are isolated from their energy source(s) and are rendered safe.

6.2.4b General

Workers performing service or maintenance on machinery and equipment are exposed to injuries from the unexpected energization, startup of the machinery or equipment, or release of stored energy in the equipment.

The Lockout/Tag out standard requires the adoption and implementation of practices and procedures to shut down equipment, isolate it from its energy source(s), and prevent the release of potentially hazardous energy while maintenance and servicing activities are being performed. It contains minimum performance requirements, and definitive criteria for establishing an effective program for the control of hazardous energy. However, employers have the flexibility to develop lockout/tag out programs that are suitable for their respective facilities.

6.2.4c Scope/Application

This standard applies to workers performing servicing and maintenance on machines and equipment and who are exposed to unexpected energization, startup, or release of hazardous energy.

Covered activities include any source of mechanical, hydraulic, pneumatic, chemical, thermal, or other energy. Constructing, installing, setting up, adjusting, inspecting, modifying, maintaining and/or servicing equipment where employees could be exposed to the unexpected energization or the startup of the equipment or release of hazardous energy.

Servicing and maintenance activities performed during normal operations if:

- An employee is required to remove or bypass guards or other safety devices.
- An employee is required to place any part of the body into a point of operation or into an area on a piece of equipment where work is performed, or into the danger zone associated with the machine's operation.

This standard does NOT apply to workers performing work on machines or equipment where they are NOT exposed to unexpected energization, or the release of hazardous energy. It does not apply to:

- Minor servicing and adjustments during normal operation, which are routine to the use of the equipment and normal machine safeguarding protection is present.
- Work on cord and plug connected equipment when the plug is removed from the energy source and the worker has control of the plug.

6.2.4d Definitions

Definitions useful to understanding the Lockout/Tag out standard and program are:

- **Authorized Employee**
  - An employee who locks or tags machines or equipment to perform servicing or maintenance.
- **Affected Employee**

- Any employee who is required to use machines or equipment on which servicing is performed under the Lockout/Tag out standard or who performs other job responsibilities in an area where such servicing is performed.

- **Another Employee**
  - All employees who are or may be in an area where energy control procedures may be utilized.

NOTE: These three categories effectively include ALL WFS ramp and warehouse employees, employees but would not include those who work ONLY in office or ticket counter locations.

- **Capable of being locked out.**
  - An energy isolating device is considered capable of being locked out if it is designed with a hasp or other means to which a lock can be affixed.
  - Has a locking mechanism built into it?
  - Can be locked without dismantling, rebuilding, or replacing the energy isolating device or permanently altering its energy control capability.
- **Energized**
  - Machines and equipment are energized when they are connected to an energy source, or they contain residual or stored energy.
- **Energy Isolating Device**
  - A mechanical device that physically prevents the transmission or release of energy, including but not limited to
  - A manually operated electrical circuit breaker.
  - A manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply connectors, and, in addition, no pole can be operated independently.
  - A line valve; a block; and any similar device used to block or isolate energy.
  - Push buttons, selector switches and other control circuit type devices are NOT energy isolating devices.
- **Energy Source**
  - Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
- **Lockout**
  - The placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.
- **Lockout Device**
  - Any device that uses positive means, such as a lock, blank flanges, and bolted slip binds, to hold an energy isolating device in a safe position, thereby preventing the energizing of machinery or equipment.
- **Normal Production Operations**
  - Utilization of a machine or equipment to perform its intended production function.
- **Servicing and/or Maintenance**
  - Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, maintaining, and/or servicing machines or equipment, including lubricating, cleaning, or un-jamming of machines or equipment, and

making adjustments or tool changes, where employees could be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

- **Tag out**
  - The placement of a tag out device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tag out device is removed.
- **Tag out Device**
  - Any prominent warning device, such as a tag and means of attachment, which can be securely fastened to an energy isolating device to indicate that the machine or equipment to which it is attached may not be operated until the tag out device is removed.

6.2.4e Energy Control Procedures

It is the intent of this procedure to ensure that equipment used by WFS is properly made safe when maintenance operations are being performed, and that equipment identified as needing such repair, which might require non-use, is safely rendered inoperative.

If a lockout procedure is to be used, an equipment lock must be utilized, with the key(s) for said lock being retained, during non-operating hours, by the maintenance supervisor at the maintenance site until such repair/servicing has been completed. Individual locks are not utilized in this program.

When maintenance is being performed on equipment that contains hydraulic lifting devices, which must be raised when the maintenance is performed, the installed blocking devices on the equipment to prevent the raised element from lowering in the absence of hydraulic pressure shall be put in place and ensured by all participating parties. If there is no blocking device, then appropriate jacks or blocks shall be used to prevent the lowering of the device. This must be accomplished before any maintenance personnel place any part of their body in an area where said device could lower and cause injury.

6.2.4f Contractor Relations

When contractors or vendors perform work at any WFS site, they must adhere to the minimum OSHA requirements for Lockout/Tag out. The WFS LOTO program shall be explained to the contractor or vendor, and they shall also inform WFS management of their own LOTO procedures. The contractor/vendor(s) shall work with WFS management (maintenance and station) to ensure compliance with LOTO programs and goals.

6.2.4g Training

Training requirements are specified in OSHA CFR 1910.147(c)(7). At WFS, they shall consist of:

- All employees must be acquainted with the LOTO procedure and the meaning of the LOTO locks or tags through the LOTO “General” training.
- Further training shall be provided to the Authorized Employees engaged in the normal servicing and repair of WFS equipment, including Station Managers and to those Affected Employees who are certified to operate equipment through the LOTO “Full” training.

- Retraining must be provided whenever a job changes results in exposure that was different that the prior job. Specifically, if an employee that was not associated with ramp operations moves to ramp operations, they shall require training, as will an employee moving from to certified equipment operator, or from any other area into the maintenance staff positions that work on equipment.
- Periodic retraining shall be carried out as part of the WFS Recurrent Training program OR if any inadequacies or deviations from the program are noted for any individual or group.
- The retraining required shall also include any new information or revised control methods and procedures in use, as necessary.

6.2.4h Periodic Review

It shall be the responsibility of the WFS Maintenance Manager, local Station Managers, or a designated Authorized Employee to periodically review the procedures, training, and note any deviations or inadequacies. This shall be done at least **annually**, and the results shall be reported to the Office of Safety and Training. The review, which may be done in groups and if carried out by an authorized employee must be carried out by an authorized employee NOT involved in the procedure being inspected, shall:

- Identify, record, and correct any deficiencies or deviations from procedure.
- If Lockout is used, review each authorized employee's responsibilities.
- If Tag out is used, review both the authorized and affected employee's responsibilities.
- If Tag out is used, review the additional training required on the limitations of the tagging system as specified in 1910.147(c)(7)(ii) with authorized and affected employees, including:
  - Tags are warning devices affixed to energy isolating devices and do NOT provide physical restraint on those devices as would be provided by a lock.
  - When a tag is attached to any device, it is NOT to be removed without authorization, and it is NEVER to be bypassed, ignored, or otherwise defeated.
  - Tags must be legible and understandable by all employees.
  - Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace.
  - Tags may evoke a false sense of security and their meaning needs to be understood as part of an overall energy control program.
  - Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.
- Advise the WFS HDQ Maintenance Department and the Office of Safety and Training when the required inspections have been performed and their results in written form.

6.2.4i Procedures for Application/Release of Energy Control

Application

The sequential procedures for the application of LOTO to WFS equipment by an authorized employee are:

- **Prepare for Shutdown**
  - Ensure knowledge of the type of machine or type of equipment being shut down, the hazards and their magnitude to be controlled, and the method or means to be used for that control.

- **Shutdown**
  - Ensure that the shutdown is performed in accordance with the procedure for shutdown of that machine or equipment to avoid further hazard to employees.
- **Isolation**
  - Ensure that appropriate isolation of energy source(s) is carried out and that all energy sources have been identified.
- **Apply Lockout or Tag Out Device**
  - Ensure that the lock or tag is applied in a manner that shall prevent energization of the unit and/or is in a readily visible position to prevent use if it cannot be affixed to the energy source.
- **Release of stored energy**
  - If energy is stored, such as hydraulic, the energy shall be released in a manner to render the equipment safe. This would include release of energy after blocking devices are put in place.
- **Verify**
  - Prior to any work being performed, an authorized employee must verify that the machine or equipment has been properly isolated and rendered safe.

Release

The sequential procedures for the release of LOTO from WFS equipment by an authorized employee are:

- Inspection of work area
  - Ensure that all non-essential items such as tools, spare parts, etc., have been removed and that the machine or equipment components are operationally intact.
- Posting
  - Ensure that all employees in the work area have been positioned safely or have cleared the area. All affected employees must be notified that the LOTO devices have been removed prior to starting the equipment.
- LOTO device removal
  - The lockout (equipment lock) or tag out device must be removed by an authorized employee. (If an individual lock device was used, it shall be removed by the employee who placed it.)

6.2.4j Temporary Removal

LOTO devices may be temporarily removed by an authorized employee for the purposes of testing or repositioning the machine or equipment. **The procedure for "Release" shall be used when this is necessary, and the procedure for "Application" shall be used after testing or repositioning.**

6.2.4k Conclusion

This program is for the safety and benefit of all WFS employees, and for any contractors or vendors employed by WFS to perform functions where LOTO would be appropriate. In any event, if any employee (authorized, affected, or other) is uncertain of the proper procedure to be followed regarding LOTO, they shall not attempt to proceed further until verifying the proper procedure with maintenance staff and/or their respective supervisor, lead, or station manager.

As previously noted, operation of any piece of equipment which is in a "Tag out" status (other than by maintenance) or unauthorized removal of a Tag out tag constitutes a safety violation and shall be a disciplinary offense, up to an including termination.

Any other questions that might arise should be directed to the HDQ Maintenance Department or the Office of Safety and Training.

6.2.5 Hot Work Procedures

6.25a General

This policy statement and permit are meant to assist WFS station Managers and maintenance staff in meeting the OSHA requirements [1910.119(k)] pertaining to "Hot Work" and [1910.252(a)] covering the basic requirements for fire prevention in "Welding, Cutting, and Brazing" operations. This policy is not meant to supersede local fire code restrictions, if they are more restrictive than those stated in the OSHA standards. Station Managers, WFS maintenance personnel, and any contracted activities involving hot work should ensure that they have become familiar with the codes, standards, and issues germane to any "hot work" carried out at any WFS station.

6.2.5b Definition

"Hot Work" is defined as any work involving electric or gas welding, cutting, brazing, or similar spark-producing operations. By default, though not specifically mentioned in the OSHA 1910.119(b) definition, would also be any grinding activities producing substantial sparking or the use of any open flame heaters of any kind.

6.2.5c Permit

A Hot Work permit is a paper permit that is meant to ensure that the safety and fire prevention items appropriate to that type of work have been assessed and it is safe for the work to be carried out. The hot work permit specifies items to be considered but cannot be complete and encompassing of all situations. When appropriate types of activities are carried out, a hot work permit should be prepared and kept on file until the work has been completed.

6.2.5d Permit Required

A hot work permit is required when two circumstances are met. They are:

- The work to be performed is applicable "hot work".
- The applicable hot work is to be performed **outside of** the normal WFS reserved safe maintenance area.

For those WFS stations where a reserved and separate maintenance area is provided, the hot work permit is not required for activity carried out within that area. However, the same safety checks must be made when any hot work is performed within that area. **ANY** hot work performed in **any area other than** the designated maintenance area **does** require a hot work permit, as well as completion of the checklist.

6.2.5e Permit Issuance

A hot work permit shall be obtained according to local, state and federal rules and regulations.

Chapter 7 – Environmental Procedures

7.1 Purpose

This Chapter outlines general environmental guidelines that must be followed in WFS GSE repair facilities.

7.2 New Product Storage

7.2.1 Oil Storage

Oil (Hydraulic, Engine, Transmission etc.) should be stored in the original product container. The container or shelves housing the container should be stored on a secondary containment device. The secondary containment device should be sized appropriately for the amount of product being stored.

7.2.2 Engine Coolant Storage

Coolant should be stored in the original product container. The container or shelves housing the container should be stored on a secondary containment device. The secondary containment device should be sized appropriately for the amount of product being stored.

7.3 Waste Storage

7.3.1 Used Oil

Used Oil should be stored in an approved container according to Local, State and Federal rules and regulations. The container should be stored on a secondary containment device. The secondary containment device should be sized appropriately for the amount of product being stored. The container should be labeled according to Local, State and Federal rules and regulations. The label should be legible and visible at all times. Only waste oil should be stored in the container, no other fluids should be added.

7.3.2 Used Coolant

Used Coolant should be stored in an approved container according to Local, State and Federal rules and regulations. The container should be stored on a secondary containment device. The secondary containment device should be sized appropriately for the amount of product being stored. The container should be labeled according to Local, State and Federal rules and regulations. The label should be legible and visible at all times. Only used coolant should be stored in the container, no other fluids should be added.

7.3.3 Fuel (Waste or Mixed with Other Fluids)

Fuel that is waste or mixed with other fluids should be kept in an approved container according to Local, State and Federal rules and regulations. If the container is made of steel the container should be electrically grounded with a grounding strap to prevent spark ignition hazards. The container should be stored on a secondary containment device. The secondary containment device should be sized appropriately for the amount of product being stored. The container should be labeled according to Local, State and Federal rules and regulations. The label should be legible and visible at all times. Fuel (Waste or mixed with other fluids) should be disposed of as soon as practically possible.

7.3.4 Fluid Filters

Fluid filters must be drained into an approved container according to Local, State or Federal rules and regulations before being stored pending disposal. Fluid filters that have been drained must be

stored in an approved container according to Local, Federal and State rules and regulations pending disposal.

7.3.5 Universal Waste

Universal Waste refers to material used in the cleanup of excess oil or other chemical fluids. It should be stored in an approved container according to local, state and federal rules and regulations.

7.3.5 Trash Storage

Trash should be stored in approved containers per local, state and federal rules and regulations for the material being stored. Trash should be removed from the GSE repair facility on a regular basis. Any trash container located in a non-covered area shall have a lid on the container to prevent rainwater ingress.

7.4 Waste Disposal

Waste products shall be disposed of according to local, federal and state rules and regulations with a WFS approved vendor. To be eligible to dispose of any WFS waste, the vendor must have an EPA number. Records of disposal shall be kept on file for a minimum of 3 years OR according to local, state and federal rules and regulations, whichever is longer.

7.4.1 Battery Disposal

Used batteries shall be disposed of according to local, state and federal rules and regulations.

7.4.2 Tire disposal

Used tires shall be disposed of according to local, state and federal rules and regulations.

Addendum 1 – GSE Procurement

Purpose

This addendum covers the policies and procedures for procurement of high value parts, tools, shop equipment and GSE. In addition to the polices procedures listed here, the WFS P-Card policies and WFS purchasing policies/procedures shall apply where applicable.

Section 1 – Appropriation Request (AR)

1.1 Purpose of Form

The AR form must be completed by the local GSE department in a station. This form contains information about the cost, justification, cost center, station and asset being repaired. The form must be filled out completely and approved by all relevant parties (See Section 1 – 1.3 AR Approval) for approval procedures). The information in the form must match exactly the information in the quote from the vendor(s) for the item(s) being requested.

1.2 Filling Out an AR

The AR Form must have all the following fields completed correctly and completely for approval:

- Request Type: Must be CAPEX or OPEX (see Addendum 1 - 1.4 CAPEX VS. OPEX)
  - CAPEX – Capitalized Expense
  - OPEX – Operational Expense
- Total Amount Requested – Input the total amount for all parts or tools associated with the repair.
- Pay Terms – If paying with a P-Card, select P-Card. If paying through invoice, select NET-60
- Request Date – The date the request is made.
- Station – The station making the request.
- CAPEX/OPEX# - DO NOT INPUT – This field shall be filled out by the Capex/Opex Team
- Description of Request – A description of what repair is to be completed.
- Justification of Request – A description of why the item being purchased is required for the repair to be completed.
- Cost Center – The cost center the asset belongs to
- Ownership – DO NOT INPUT
- ASSET ID – The Asset ID that the AR is for
- Work Requested – Input the work being done to the asset.
- Quote amount – The total amount on the quote.
- Vendor – The vendor performing the work or supplying the part(s)
- 1st Level Approver – The VP who has control over the cost center that the repair is requested for.

1.3 AR Approval

For timely approval of AR's, the following procedure should be followed. In all cases, there should be written or verbal communication with the Cost Center management that the item will be requested. This should happen prior to submitting the AR.

1. The AR form is completed by the person requesting to purchase the item(s).
2. The AR form is emailed to the Regional GSE Manager (see Addendum 8 – GSE Organizational Chart) with the quote attached.
3. If approved, the Regional GSE Manager shall email the AR and quote (with approval) to the VP of GSE with the Director of GSE Administration/FA in copy for approval.
4. If approved, the GSE Administration department shall input the AR form into EYVO for first, second level and third level approval.
5. If approved, an AR number shall be returned to the original requestor.
6. The item may be purchased.

1.3.1 Approvers

Line of Business	**1st Level Approver**	**2nd Level Approval**	**3rd Level Approver**
Ground (Pax)	VP of Ground	SVP Ground/Express	CFO
Express	VP Express	SVP Cargo/Express	CFO
Cargo	VP Cargo (Region Dependent)	SVP Cargo	CFO

1.3.2 Email Procedures

For timely AR approval, the initial email requesting approval should contain both the completed AR form and the quote from the vendor. The email subject should always have the following syntax:

COST CENTER / ASSET ID (IF APPLICABLE) / DESCRIPTION OF PROPOSAL / COST

1.4 CAPEX VS. OPEX

1.4.1 CAPEX

"CAPEX" is a capitalized expense. CAPEX should be selected if the purchase is over $2000 USD and will extend the useful life of a WFS owned asset by at least 3 years and the repair is not due to abuse.

1.4.2 OPEX

"OPEX" is an operational expense. OPEX should be selected if the purchase is over $2000 USD and does not fall into the "CAPEX" category.

Section 2 Equipment Purchase

2.1 Policy

All local equipment purchased for WFS must be approved through the AR procedure (See Addendum 1 - 1.3 AR Approval). If approved, a Notice of Arrival (see Addendum 2 – Equipment Shipping/Receiving/Disposal Procedures) must be completed and sent to HDQ Maintenance. The equipment shall be tracked in Emaint X3 or Dossier 7 (see and Addendum 3 – E-Maint X3 CMMS System). All equipment must be properly branded according to Addendum 6 – GSE Appearance and Branding before being used in-service.

Addendum 2 – Equipment Shipping/Receiving/Disposal Procedures

Purpose

This addendum covers procedures for shipping equipment, receiving equipment and disposing of equipment.

2.1 Equipment Shipping (Internal Movements)

When equipment is shipped between WFS stations the following procedures must be followed.

2.1.2 Preparation for Shipment

Before the unit is shipped, it shall be brought as close to "like new" condition as possible, unless directed otherwise by HDQ Maintenance. The unit should be checked for proper operation and corrections to defects should be made. Company decals should be replaced as necessary to meet the requirements in Addendum 6 – GSE Appearance and Branding. Paint should also be checked and corrected to meet the requirements in Addendum 6 – GSE Appearance and Branding.

2.1.2 Equipment Shipping/Receiving Checklist (Shipping Station)

The "Equipment Shipping/Receiving Checklist" Part One and Part Two should be filled out completely before the unit is shipped by the station shipping the equipment. This form must be emailed to the Director of GSE Administration/FA, the receiving station General Manager and receiving GSE Manager or equivalent (where applicable, see Addendum 8 – GSE Organizational Chart).

2.1.3 Equipment Shipping/Receiving Checklist (Receiving Station)

The "Equipment Shipping/Receiving Checklist" Part Three should be filled out completely. The unit should be checked completely for shipping damage. If any damage is found, it should be reported to HDQ Maintenance immediately. The completed Equipment Shipping/Receiving Checklist should be emailed to the Director of GSE Administration/FA.

2.2 New Equipment Receiving

When WFS receives a piece of equipment that is either new (from OEM) or "new to us" (from a vendor or third party owned equipment), the following procedures must be followed.

2.2.1 In-Service Inspection

All equipment received into a WFS station from an external company must be inspected fully to ensure proper operation. The equipment should also be checked for correct company decals and all paint should be checked to meet the requirements in Addendum 6 – GSE Appearance and Branding.

2.2.2 GSE Shipping/Receiving Checklist

The WFS "GSE Shipping/Receiving Checklist" form should be filled out completely. Note that for Bobtails or any on-highway equipment, engine hours should be provided instead of an odometer reading. This form should be emailed to the Director of GSE Administration/FA (see Addendum 8 – GSE Organizational Chart) within 24 hours of arrival.

2.3 Equipment Disposal

No equipment shall be removed from a WFS location without approval from the Director of GSE and VP of GSE. To request approval for equipment disposal, the “Scrap Request Form” must be filled out and submitted to the VP of GSE and Director of GSE Administration/FA (see Addendum 8 – GSE Organizational Chart). If the scrap request is approved, the equipment must be disposed of in a timely manner. Pictures of the asset with WFS company decals removed must be provided before the equipment has left the station.

2.3.1 Returning Equipment to Vendor

When WFS returns leased equipment to a vendor, the following procedures shall apply:

1. The equipment must be brought as close to “like new” as possible (unless directed otherwise by Director of GSE or above).
2. WFS asset and brand decals must be removed from the equipment before the equipment leaves the station.
3. HDQ Maintenance must be informed when the equipment has left the station.

Addendum 3 – E-Maint X3 CMMS System

Section 1 – Emaint X3

1.1 Purpose

The E-Maint X3 CMMS is designed to house asset information on all WFS equipment. It also contains Work Orders for repairs completed on WFS equipment.

1.2 Data Entry

Data shall be entered into the E-Maint system no later than 24 hours after completion of a repair or PMI.

1.3 Data Submission

There are 2 levels of CMMS entry.

1. In-Location – The station administrative staff shall enter all work completed from paper timecards turned in each shift by the mechanic(s) in the station.
2. Headquarters Entry – The paper timecards shall be emailed to HDQ maintenance for entry into the CMMS.

Addendum 4 – Dossier 7 CMMS System

Purpose

Dossier 7 is one of two Computer Maintenance Management Systems (CMMS) used by Worldwide Flight Services. It replaces Emaint X3. This addendum covers definitions and procedures for Dossier 7 to be used by Operations and GSE Maintenance personnel.

Section 1 Dossier Terms Definitions

1.1 Work Request

The "Work Request" is the electronic form in Dossier 7 that is used to report issues with a piece of equipment. Work Requests are input into the system by Operations and GSE personnel; or in the case of a PMI inspection, generated automatically by Dossier 7. Each Work Request is assigned to a specific Asset. Work Requests can be assigned to one or more "Work Orders" (see Sec. 1 1.2 Work Orders).

1.2 Work Orders

A "Work Order" is the record of repair on a piece of WFS Ground Service Equipment (GSE). It contains the Tasks associated with a repair.

1.3 Task

A "Task" is the record of part and labor information attached to a "Work Order". There is a one-to-one relationship between the Tasks and Work Requests.

Section 2 Equipment Issue Reporting Procedures

2.1 Operations Routine Equipment Issue Reporting

From time to time, GSE assets may experience an issue. An "issue" is when any component(s) on a piece of equipment does not function according to the original design of the equipment. These issues should be reported in a timely manner according to 2.1.1 Routine Reporting Procedure. This procedure covers all instances of equipment failure except when the equipment failure causes a delay in aircraft departure (see Section 2.2 Aircraft Delay Caused by GSE Issue Reporting Procedure)

2.1.1 Routine Reporting Procedure

1. The issue is recorded visually or on the Pre/Post-Trip Inspection (see Chapter 2 – 2.2.1 Pre/Post Inspection).
2. The issue shall be reported to Operations Management (MOD, AGM, GM)
3. Operations Management creates a "Work Request" via the Dossier 7 mobile application or Dossier 7 web application including the following information in the fields listed:
    a. Description – a brief description of the issue with the piece of equipment
    b. Asset – The WFS Asset ID of the piece of equipment
    c. Priority – This is a dropdown field with 2 options "In Service" or "Out of Service". In service means the equipment is still safe to operate, out of service means a critical safety function is not working or the failed component prevents operation of the equipment.

2.2 Aircraft Delay Caused by GSE Issue Reporting Procedure

1. The issue occurs during the loading, unloading or pushback of an aircraft, causing a departure delay.
2. The issue shall be reported to Operations Management (MOD, AGM, GM)

3. Operations Management creates a "Work Request" via the Dossier 7 mobile application or Dossier 7 web application including the following information in the fields listed:
   a. Description – a brief description of the issue with the piece of equipment and the following information:
      i. Flight Number
      ii. Scheduled Block Out time
      iii. Actual Block Out time
   b. Asset – The WFS Asset ID of the piece of equipment
   c. Priority – This is a dropdown field with 2 options "In Service" or "Out of Service". In service means the equipment is still safe to operate, out of service means a critical safety function is not working or the failed component prevents operation of the equipment.
   d. The Request Reason field must be changed to "FTD – Caused Flight Delay".

Section 3 Required Equipment Inspections

3.1 Pre/Post Inspection

The Pre/Post Trip inspection shall be completed according to Chapter 2 - 2.2.1 Pre/Post Inspection. Any discrepancies must be transferred as a Work Request into Dossier 7 (see Addendum 4 - 2.1.1 Routine Reporting Procedure).

3.2 Monthly Container Loader and Towbar Checklist

Every month all Container Loaders and towbars shall be inspected for critical structural and safety related items between PMI. The Checklist is to be completed by filling out the Monthly Container Loader and Towbar Checklist when the Monthly Container and Towbar PMI is due in Dossier 7. The PMI Interval in Dossier 7 will be automatically updated when the associated task in Dossier 7 is closed, and the corresponding work order is closed, and the next Monthly Container Loader and Towbar Checklist PMI will come due thirty (30) days after this event. The checklist shall be filed according to Chapter 2 - 2.2.5 Monthly Container Loader/Towbar Checklist.

3.3 Weekly Equipment Check

Powered equipment shall be checked for proper operation, that all safety functions work, and that all vital fluids are within the correct operational level. The PMI Interval in Dossier 7 will be automatically updated when the associated task in Dossier 7 is closed, and the corresponding work order is closed, and the next Weekly Equipment Checklist PMI will come due 7 days after this event. The form shall be filed according to Chapter 2 - 2.2.7 Weekly Equipment Check.

Section 4 – PMI Tracking

4.1 PM Status and Completion

PMI status shall be tracked through Dossier 7. Every asset shall be assigned one or more PMI intervals and checklists to ensure proper preventative maintenance. When a PMI comes due in the system, it will progress through different stages to show compliance with the PMI schedule.

- **Coming Due** – The unit has entered the "Notification Window" of the PMI interval. This happens 21 days or 50 engine hours before the end of the compliance period. PMIs within this window that are completed are considered completed early. The unit is within PMI compliance during this stage.
- **Due** – The unit has entered the "Due" window of the PMI interval. This indicates that the PMI needs to be performed. This occurs 14 days or 25 engine hours from the end of the

compliance period. A PMI completed in this window is considered completed on time. The unit is within PMI compliance during this period.

- **Overdue** – The unit has reached the end of the compliance period. The unit is no longer in compliance with the PMI interval. A PMI completed with this status is completed late.
- **Critical** – The unit has reached the end of the Overdue period and is out of compliance with the PMI interval. This occurs 7 days or 10 engine hours from the start of the Overdue period. A PMI completed with this status is considered completed late.

All equipment shall have a PMI Interval assigned according to Chapter 5 - 5.3 Preventive Maintenance Program. The PMI shall be closed and completed when the PMI checklist is completed, and the Task associated with the PMI is closed. Dossier 7 automatically updates the PMI interval of the asset. Compliance shall be checked by Management each day and the beginning and end of their shift. Where required, the closing of the Work Order constitutes Manager sign from the PMI.

4.2 PMI Rotation

PMI rotation in Dossier 7 is determined by Chapter 5 - 5.3.2 PMI Intervals and Rotation.

Section 5 – Work Request/Work Order Management

5.1 Work Request Management

Work Requests shall be entered into the system by Operations personnel, GSE personnel or generated by the system automatically. Work Requests shall be assigned to a Work Order no later than 24 maintenance operation hours after being created. If a Work Request is a duplicate report, it must be notated in the description that it is a duplicate and closed with a status of “Not Approved”.

5.2 Task Management

Tasks are the record of work for an issue on a piece of equipment. A task is created by assigning a Work Request to a Work Order.

5.2.1 Mechanic Labor

All labor associated with a repair shall be recorded on the task for that repair. A mechanic must clock in before performing work on the task. When a mechanic clocks out of the task, the mechanic shall navigate to the labor line and put a brief description of what was done during that time in the “Work Description” field.

5.2.2 Parts

All parts used in a repair shall be recorded on the task for that repair. When a part is removed from parts storage, the part number shall be entered, and the quantity used shall be recorded. Used parts shall not be counted.

5.2.3 Task Coding

All Tasks shall be coded according to the type of repair performed and the part of the equipment being repaired. The following fields must be completed when the repair is complete:

- System – The system being repaired on the equipment.
- Assembly – Shall be filled out as “000”.
- Component – Shall be filled out as “000”.
- Work Reason – This indicates why the piece of equipment failed.
  - Breakdown – The equipment failed while operating under normal conditions.

  - Preventive Maintenance – The Task is a PMI.
  - No Start – The equipment would not start due to the actions of an operator. Examples include leaving the lights on and killing the battery, running the unit out of fuel or damaging the starter by overcranking.
  - Abuse of Equipment – Damage was caused to the equipment by using it outside of its normal operating parameters or by negligence.
  - Accident, Reported – The equipment was involved in an accident.
  - Operational Requirement – This is to be used on "Shop" assets only. This indicates work that is required to keep the repair facility clean or to indicate flight standby time.
- Failure Code – This indicates how the repaired component failed.
- Work Accomplished Code – This indicates what the mechanic did to repair the failed component, or the type of PMI completed (if applicable).

5.2.4 Closing a Task

When the repair is complete, the mechanic shall code the task. The mechanic shall then close the task with a status of "Closed" and a disposition of "Complete".

5.3 Work Order Management

5.3.1 Opening a Work Order

A work order shall be opened when there is at least one Work Request open against a piece of equipment (see Addendum 4 - 5.1 Work Request Management). At any given time, there shall be no more than one Work Order open against a particular asset except when an outside entity is also performing work on a piece of equipment.

5.3.2 Out of Service Equipment

When a piece of equipment is Out of Service, the "Out of Service" field on the Work Order shall be set to "Yes". An "Out of Service Reason" must be selected. The "Notes" field should be filled out with the most updated information available about the status of repair. For Dossier 7 Stations, this procedure constitutes the "Weekly Out of Service Log" (Chapter 2 - 2.2.4 Weekly Out of Service Log).

5.3.3 Work Order Review

When all tasks are completed on a Work Order, the Work Order shall have a disposition of "Review". This indicates that the Work Order is ready to be reviewed by management and closed.

5.3.4 Closing a Work Order

Work Orders shall be closed by authorized personnel when the repair(s) are completed. The Work Order must be reviewed by authorized personnel prior to closing.

Section 6 – Purchase Orders

6.1 Scope

All parts purchased in a Dossier 7 station shall be captured on a Purchase Order.

6.2 Opening a Purchase Order

A quote shall be received from a Vendor. This information shall be transferred on to a Purchase Order. The Purchase Order should also include the cost center, quote number and Asset ID (if applicable).

6.3 Closing a Purchase Order

All parts on the purchase order shall be received in the system when they come in to the station. The packing list should be checked against the purchase order, then the purchase order shall be closed automatically.

6.4 Purchase Receipts

When a part(s) is received on a Purchase Order, a Purchase Receipt shall be opened. The GSE Manager or GSE Admin in the station shall upload the invoice to the Purchase Receipt and document the invoice number in the “Description” field. Then the Purchase Receipt Status should be changed to “Closed” and saved.

Section 7 – Parts Inventory Management

7.1 Part Storeroom

Each station shall have a digital “Part Storeroom” set up in Dossier 7. This Storeroom must contain an accurate inventory of all parts physically in the station. All parts must be received into inventory through Purchase Orders (see Addendum 4 - 5.2.2 Parts). The only exceptions to this are standard nuts, bolts and consumable shop supplies.

7.2 Parts Inventory Verification Procedure

To control and verify GSE part inventories in the network, there are two processes to be followed to verify inventory:

7.2.1 Monthly Random Check

Each month, 10 randomly selected part numbers shall be sent to each station. The station shall count the quantity of that part number physically in stock in the station. These quantities shall be verified in Dossier 7 and any discrepancies shall be documented.

7.2.2 Full Station Inventory

Every 6 months, all parts shall be counted, and those quantities shall be verified in Dossier 7. Any discrepancies shall be documented.

ECR Transition Procedure

The Equipment Condition Report (ECR) shall be utilized for a minimum of two (2) weeks after the launch date of Dossier 7.

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Addendum 6 – GSE Appearance and Branding

Section 1 – GSE Appearance Standards

1.1 Paint Standards

The standard color for WFS Equipment is “Equipment White” (also known as Bright White) and is used for all WFS equipment unless authorized by the Director of GSE or above to use any other color. Red, where needed is “Fire Engine Red” (also known as “Safety Red”) and Yellow, where needed, is “Safety Yellow”. All leased equipment shall be touched up or painted in OEM colors.

1.2 Decal Standards

All WFS equipment must have current WFS brand decals affixed to the locations specified by the Ground Equipment Labeling Guide. Decals must be ordered using the “Master Decals Order Form rev1” (located on the WFS Intranet: https://intranet.wfs.aero/Interact/Pages/Content/Document.aspx?id=3844) according to equipment type. Decals that are ripped, torn or otherwise damaged must be replaced.

1.3 Foreign Object Debris

WFS Equipment must be kept free of Foreign Object Debris (FOD). FOD is any object that is not affixed to the equipment by the OEM and/or not used for the operation of the equipment. It is both Operations and GSE Maintenance’s responsibility to ensure equipment stays free of FOD.

1.4 OEM Safety Decal Standard

All OEM Safety decals must be maintained in an “As New” condition. If the OEM safety decals are damaged or removed, they must be replaced.

1.5 WFS Asset ID Standard

WFS Equipment must be stenciled or decaled with the correct Asset ID as it appears in the WFS CMMS being used in the station in 3-inch lettering.

1.6 Lease Vendor/Third Party Decals

All decals that are not installed by the OEM or WFS must be removed from the equipment before being put into service.

Section 2 – Appearance Inspection

2.1 PMI

All equipment is to be inspected for appearance during scheduled PMI’s. Any discrepancies found shall be noted and repaired. Refer to Chapter 2 - 2.2.11 Preventive Maintenance Inspection Form and Chapter 5 - 5.3 Preventive Maintenance Program for detailed PMI information.

2.2 Appearance Inspection

Appearance inspections should be carried out on GSE on a “regular” schedule, with the interval being determined by the station according to the use and volume of the equipment. In addition, an appearance inspection should be carried out any time there has been an incident which might affect the appearance of the equipment.

Addendum 7 – Form Examples

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1.1 Pre-Trip Inspection

STATION:___________

DATE:____________ *

POWERED EQUIPMENT DAILY SAFETY CHECK

CONTRACT:___________

CHECK BOX INSTRUCTIONS: √ = OK X = CORRECTION NECESSARY - DETAILS NOTED IN DOSSIER N = NOT APPLICABLE NOTE: IF BRAKES DEFECTIVE NOTIFY SUPV. IMMEDIATELY

COMPANY NUMBER	EQUIPMENT DESCRIPTION	HOUR METER READING	CHECK OPERATION - Checks Present?	FUEL LEVEL - F= Full, / = 1/2, X = Needs Fuel	HORN - Works	LIGHTS - Work, Including Brake Lights	CHECK SEAT BELTS - Secure and Locks	SEAT - Secured and not loose	FOOT BRAKE - Firm - Holds Unit	PARKING BRAKE - Holds Unit when Applied	GLASS/MIRRORS/WIPERS - Missing or Broken	STEERING - No Binding or Excessive Freeplay	LEAKS - Oil or Antifreeze on Ground	EXTINGUISHER - Gauge Green / Insp Current	TIRES - Flat or Bald	HITCH - Secure, Spring Loaded & Locks	GUARDS, HANDRAILS, & SAFETY DEVICES - Work	HOOD / DOORS - Secured and Latched	SERVICABLE - OK for operation	UNSERVICABLE - Red Tagged / Reported to GSE	Correction Details Noted Damage (If mutilple inspectors initail here)	(Check Previous Inspection for Carry over Items) Dossier Work Request ID WR-

COMMENTS:

OPERATOR OR INSPECTORS SIGNATURE ____________________

CARD REVIEWED AND DEFECTS REPORTED TO GROUND EQUIPMENT MAINTENANCE VIA DOSSIER

SUPERVISOR'S SIGNATURE ____________________ Date: __________

*COPY OF THIS DAILY INSPECTION MUST BE MAINTAINED ON FILE FOR 30 DAYS FROM THE DATE OF INSPECTION

WFS Worldwide Flight Services · WFS EXPRESS · CAS Cargo Airport Services Canada Inc.

Version 2.0 REVISED 12/15/2022
Process Owner: NAM HSSE

1.2 Red Tag

WFS	Procedural Reference	Author: K. Roberts Dept: Training/Quality
	GSE Red Tag Procedure	Issue Date: 03/01/2021 Retention: UFN

Equipment **must** be RED TAGGED by **any** employee noticing defects with equipment

THE PROCESS:

- Red-Tag is completed and attached to the steering wheel
  - highly visible place for non-motorized equipment (dolly tongue, handle, etc.)
- Contact Duty Manager/Supervisor to check equipment to confirm red-tag status
  - provide location and vehicle number
- Duty Manger/Supervisor to ensure Red-Tagged unit is included on daily ECR and provided to GSE
- If Red Tagged equipment is impacting operational performance, a PHONE CALL must be made to GSE at ###-###-#### (Local GSE Number)
- If the equipment is safe to drive, it should be taken to (insert local designated staging area here)

Equipment should only be **pulled** by other GSE equipment **NEVER PUSHED.**

Equipment must only be pulled by means of rope or chain found in the (insert location of rope/chain here). Pulling of equipment should only be performed by Supervisors, Duty Managers or GSE staff.

If it is not possible to pull the equipment due to its location, a GSE mechanic must move or supervise the movement of the GSE.

SAMPLE Red-Tag

Attach to unit, where clearly visible

Complete all fields legibly

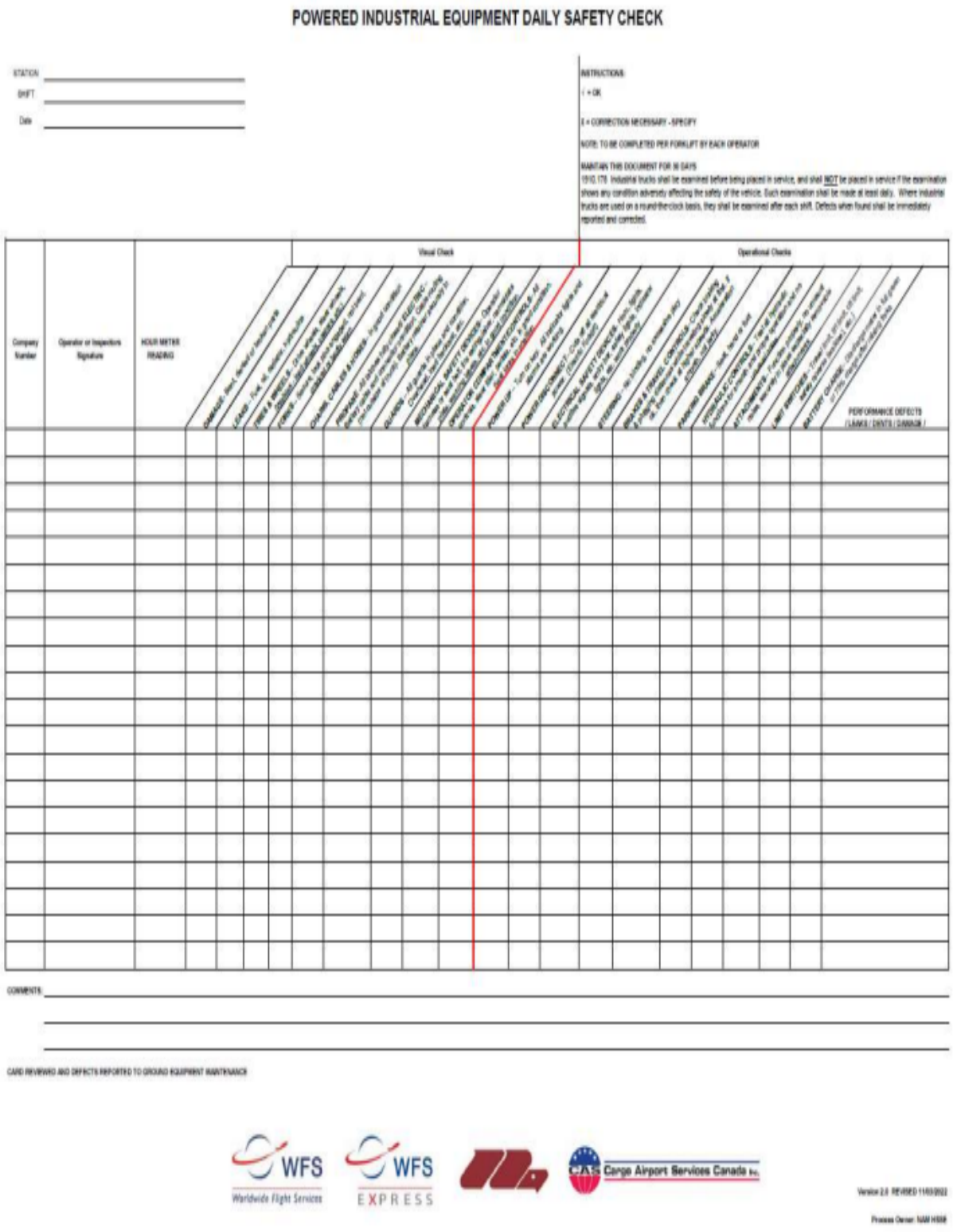
Log Red-Tag status on ECR

When to Red Tag

- Unsafe to operate
- Leaking fluids
- Not operating normally
- Flat/Worn Tires
- If it is questionable, red tag it!

** If a unit needs service but is not a safety hazard (i.e. cosmetic issue) do not red tag, add to ECR for record and future attention

1.3 Powered Industrial Equipment Daily Safety Check (Forklifts)



POWERED INDUSTRIAL EQUIPMENT DAILY SAFETY CHECK

STATION _____
SHIFT _____
Date _____

INSTRUCTIONS
√ = OK
X = CORRECTION NECESSARY - SPECIFY
NOTE: TO BE COMPLETED PER FORKLIFT BY EACH OPERATOR
MAINTAIN THIS DOCUMENT FOR 90 DAYS
1910.178 Industrial trucks shall be examined before being placed in service, and shall NOT be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made at least daily. Where industrial trucks are used on a round-the-clock basis, they shall be examined after each shift. Defects when found shall be immediately reported and corrected.

Company Number	Operator or Inspectors Signature	HOUR METER READING	Visual Check											Operational Checks												
			CHARGER	LEAKS	FORKS & CARRIAGE	FORKS	CHAINS, CABLES & HARDWARE	PROPANE	CHASSIS	MECHANICAL SAFETY DEVICES	OPERATOR COMPARTMENT	POWER UP	POWER DISCONNECT	ELECTRICAL SAFETY DEVICES	STEERING	BRAKES & PARKING	PARKING BRAKE	HYDRAULIC CONTROLS	ATTACHMENTS	LIMIT SWITCHES	BATTERY CHARGE	PERFORMANCE DEFECTS (LEAKS / DENTS / DAMAGE)

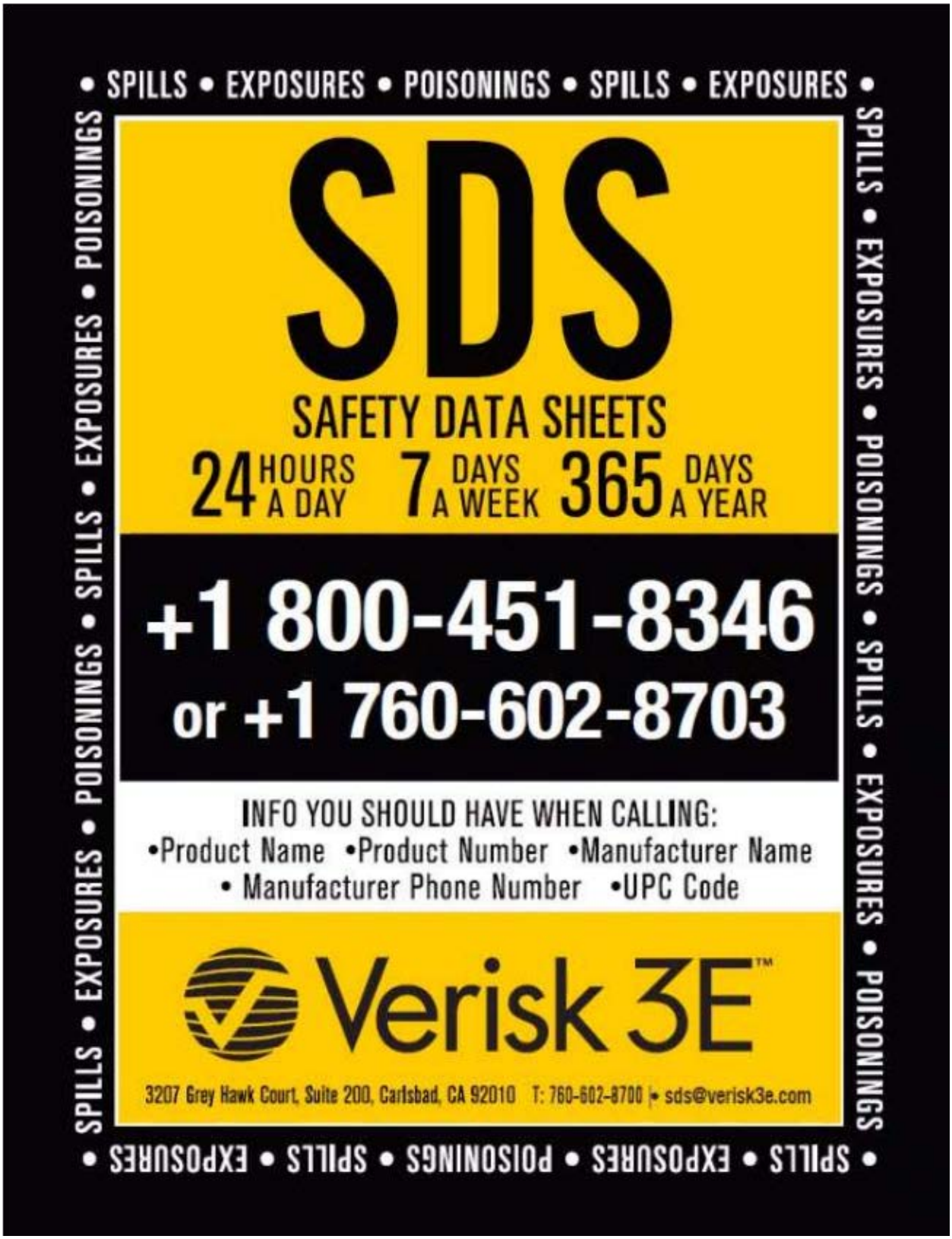
COMMENTS: _____

CARD REVIEWED AND DEFECTS REPORTED TO GROUND EQUIPMENT MAINTENANCE

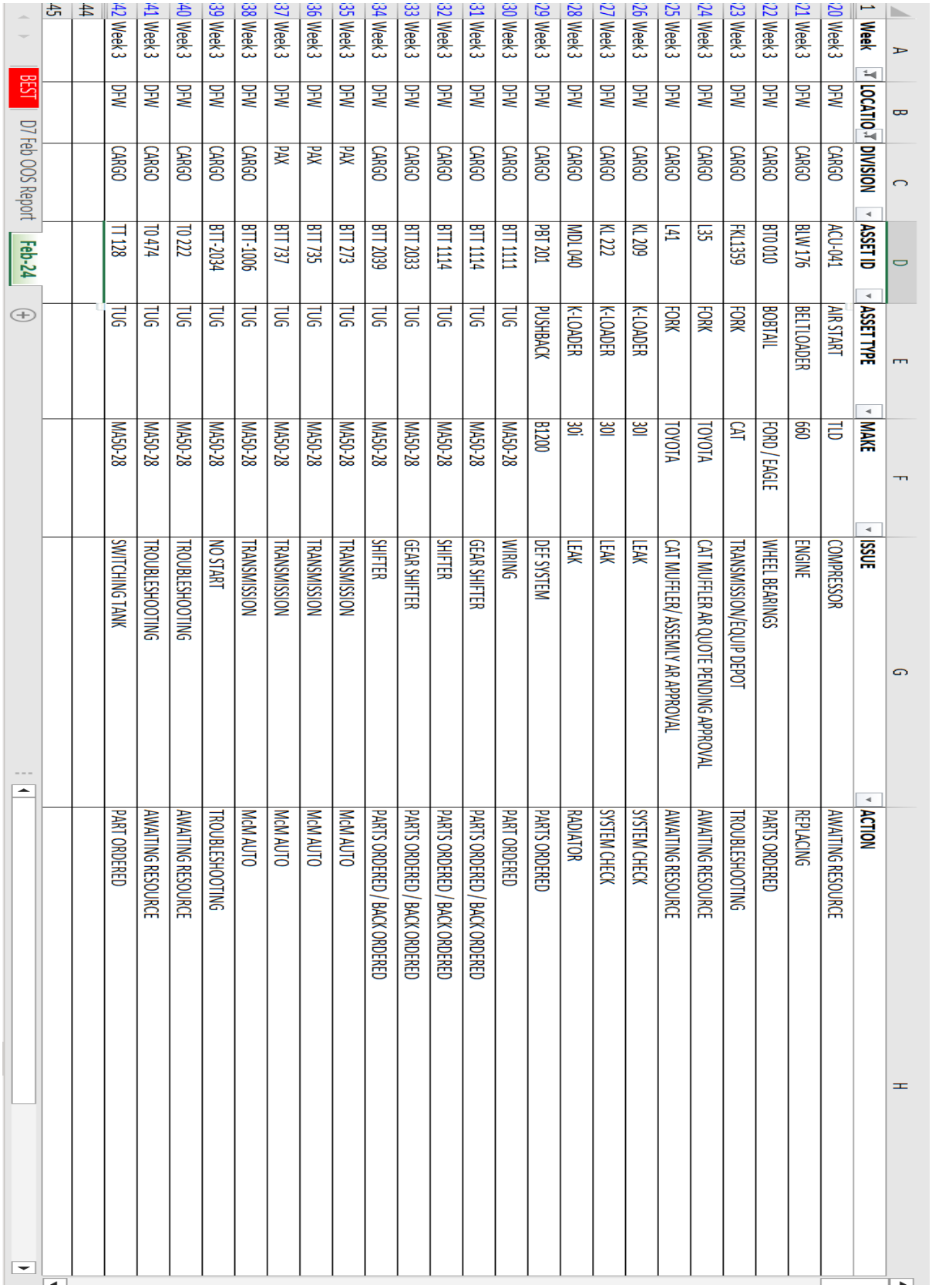
WFS Worldwide Flight Services
WFS EXPRESS
Cargo Airport Services Canada Inc.

Version 2.0 REVISED 11/03/2022
Process Owner: NAM HSSE

1.4 SDS Poster



1.5 Weekly OOS Log



Week	LOCATION	DIVISION	ASSET ID	ASSET TYPE	MAKE	ISSUE	ACTION
Week 3	DFW	CARGO	ACU-041	AIR START	TLD	COMPRESSOR	AWAITING RESOURCE
Week 3	DFW	CARGO	BLW 176	BELTLOADER	660	ENGINE	REPLACING
Week 3	DFW	CARGO	BTO 010	BOBTAIL	FORD / EAGLE	WHEEL BEARINGS	PARTS ORDERED
Week 3	DFW	CARGO	FKL1359	FORK	CAT	TRANSMISSION/EQUIP DEPOT	TROUBLESHOOTING
Week 3	DFW	CARGO	L35	FORK	TOYOTA	CAT MUFFLER AR QUOTE PENDING APPROVAL	AWAITING RESOURCE
Week 3	DFW	CARGO	L41	FORK	TOYOTA	CAT MUFFLER/ ASSEMLY AR APPROVAL	AWAITING RESOURCE
Week 3	DFW	CARGO	KL 209	K-LOADER	30I	LEAK	SYSTEM CHECK
Week 3	DFW	CARGO	KL 222	K-LOADER	30I	LEAK	SYSTEM CHECK
Week 3	DFW	CARGO	MDL 040	K-LOADER	30i	LEAK	RADIATOR
Week 3	DFW	CARGO	PBT 201	PUSHBACK	B1200	DEF SYSTEM	PARTS ORDERED
Week 3	DFW	CARGO	BTT 1111	TUG	MA50-28	WIRING	PART ORDERED
Week 3	DFW	CARGO	BTT 1114	TUG	MA50-28	GEAR SHIFTER	PARTS ORDERED / BACK ORDERED
Week 3	DFW	CARGO	BTT 1114	TUG	MA50-28	SHIFTER	PARTS ORDERED / BACK ORDERED
Week 3	DFW	CARGO	BTT 2033	TUG	MA50-28	GEAR SHIFTER	PARTS ORDERED / BACK ORDERED
Week 3	DFW	CARGO	BTT 2039	TUG	MA50-28	SHIFTER	PARTS ORDERED / BACK ORDERED
Week 3	DFW	PAX	BTT 273	TUG	MA50-28	TRANSMISSION	McM AUTO
Week 3	DFW	PAX	BTT 735	TUG	MA50-28	TRANSMISSION	McM AUTO
Week 3	DFW	PAX	BTT 737	TUG	MA50-28	TRANSMISSION	McM AUTO
Week 3	DFW	CARGO	BTT-1006	TUG	MA50-28	TRANSMISSION	McM AUTO
Week 3	DFW	CARGO	BTT-2034	TUG	MA50-28	NO START	TROUBLESHOOTING
Week 3	DFW	CARGO	TO 222	TUG	MA50-28	TROUBLESHOOTING	AWAITING RESOURCE
Week 3	DFW	CARGO	TO 474	TUG	MA50-28	TROUBLESHOOTING	AWAITING RESOURCE
Week 3	DFW	CARGO	TT 128	TUG	MA50-28	SWITCHING TANK	PART ORDERED

1.6 GSE Shipping/Receiving Checklist

GSE Shipping Receiving Checklist

MAKE SURE TO ATTACH PICTURES WHEN SENDING THIS FORM IN

***Part One: To be completed if receiving NEW equipment.**

Cost Center: _____ Date Received: _____ Received From: _____

Asset Number (If known): _____ Equipment Type: _____

Make: _____ Model: _____ Year: _____ Serial/VIN #: _____

HRS/Miles at Delivery: _____ Fuel Type: _____ Lic. Plate #: _____ Smart Sensor: Y/N

****Part Two: To be completed if shipping equipment.**

Shipping Station _____Date Shipped_____Shipped by _____
Asset ID _____ Ship to Station _____
Is the unit in good operational condition and appearance? _____Yes _____No
If No, Explain _____
Are PMI's current? _____Yes _____No
If No, Explain _____
Are all open repairs completed? _____Yes _____No
If No, Explain _____
Are all service manuals with unit? _____Yes _____No
If No, Explain _____
Are all records complete in CMMS/D7? _____Yes _____No
If No, Explain _____

*****Part Three: To be completed by any station receiving equipment.**

Receiving Station_____Date Received_____Received by_____
Asset ID (If known) _____
Is there any shipping damage? _____Yes _____No
If Yes, Explain _____
Is the unit in good appearance and operational condition? _____Yes _____No
If No, Explain _____
Is the unit branding and decals properly applied? _____Yes _____No
If No, Explain _____
Are all service manuals/history records/files with unit? _____Yes _____No
If No, Explain _____
Has unit been added to the Station's Equipment Status Report? _____Yes _____No
If No, Explain _____
Are all records complete in CMMS/D7? _____Yes _____No
If No, Explain _____

***Email completed NOA form to Andy Migacz along with all necessary pictures**
****Email completed shipping form to Andy Migacz / Receiving Station Manager and Mechanic**
*****Email completed receiving form to Andy Migacz**

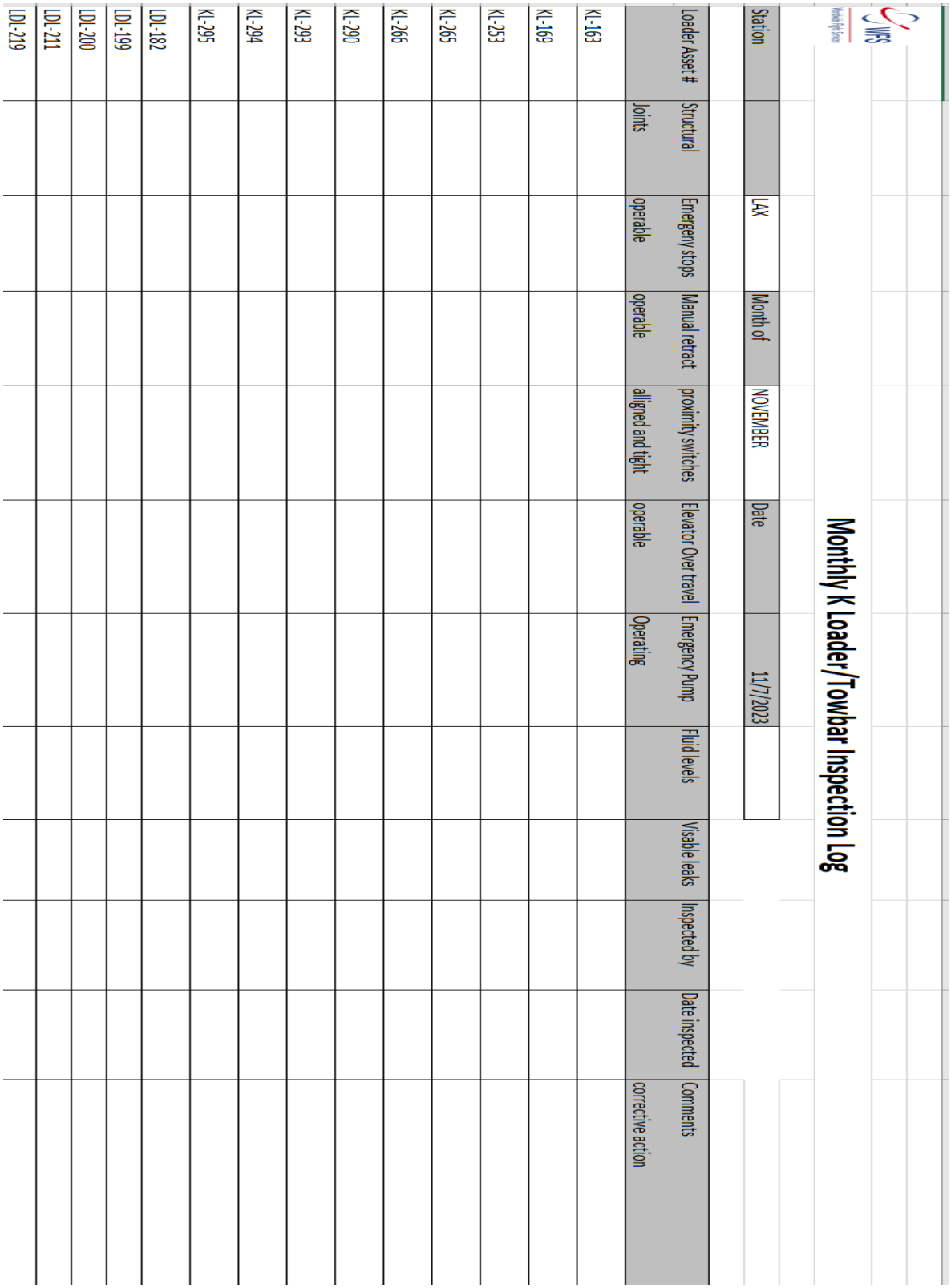
Rev. 01/03/24

1.7 Decal Order Form

QTY			#2	#3	#4	#5	#6	#7	#8	Total	Estimated	
			7.8"x12.75"	9.8"x16"	11.2"x18.2"	13"x21"	15"x22.25"	18.7"x30.25"	22"x42.12"	Qty	SubTotal $	
	ACU	Air Conditioner										Please only fill in Quantity
	ASU	Air Start										
	BCC	Baggage Cart										
	BCO	Baggage Cart Open										
	BLN	Beltloader (narrow)										
	BLW	Beltloader										
	BOB	Bobtail										
	BTT	Bag Tractor/Tug										
	BTT	Bag Tractor/Kubota										
	CAR	Car/SUV/Truck										
	CST	Cabin Service Truck										
	CTR	Box Truck										
	DEI	Deicer										
	DOL	Dolly - No decals	STENCIL									
	FKL	Forklift										
	FTC	Fuel Cart										
	FTR	Fuel Truck										
	GFC	Golf Cart										
	GPU	Generator										
	LDL	K-Loader										
	LVC	Lavatory Cart										
	LVT	Lavatory Truck										
	RL	Light Tower	STENCIL									
	MDL	K-Loader										
	PBT	Pushback Tractor										

Equip Decals Per - Calc+Quote

1.8 Monthly Container Loader/Towbar Inspection

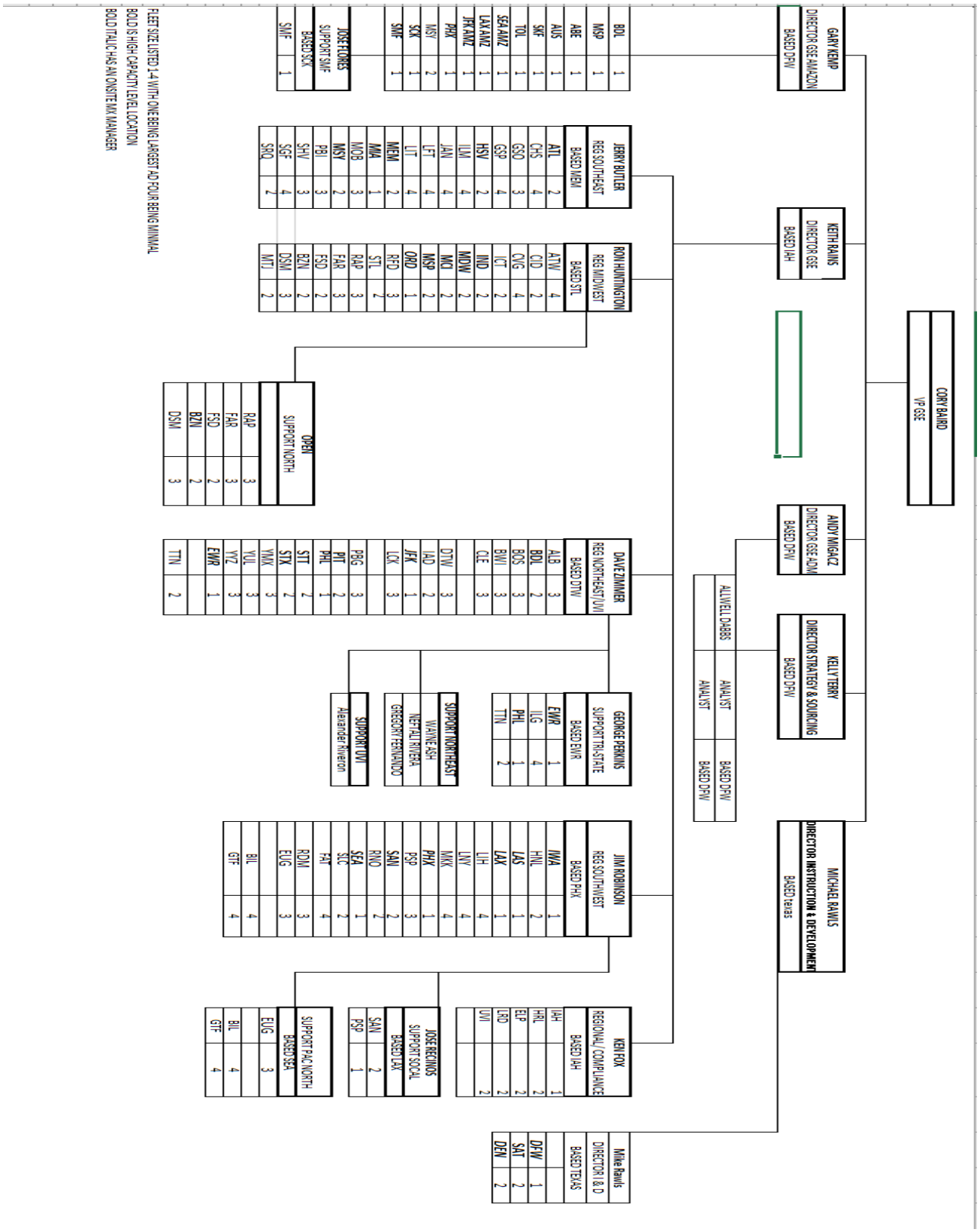


Monthly K Loader/Towbar Inspection Log

Station		Month of		Date	
	LAX		NOVEMBER		11/7/2023

Loader Asset #	Structural	Emergency stops	Manual retract	proximity switches	Elevator Over travel	Emergency Pump	Fluid levels	Visable leaks	Inspected by	Date inspected	Comments
	Joints	operable	operable	alligned and tight	operable	Operating					corrective action
KL-163											
KL-169											
KL-253											
KL-265											
KL-266											
KL-290											
KL-293											
KL-294											
KL-295											
LDI-182											
LDI-199											
LDI-200											
LDI-211											
LDI-219											

Addendum 8 – GSE Organizational Chart



Maintenance Manual Change Log

Rev #	Date	Change	Approved GSE	Approved HSSE
5.0	03/01/2024	Manual published, supersedes REV 4	Cory Baird	Kathy Roberts
5.1	05/01/2024	Editorial Changes to Section 5.3.2a for clarity	Cory Baird	Kathy Roberts
5.2	06/12/2024	Editorial Changes to Section 5.3.2b for clarity	Cory Baird	Kathy Roberts