This Evaluation Guide for Skills Demonstration is to be used in the evaluation of an operator for certification on the specific piece of equipment stated above. It is intended that this Guide be followed closely during an evaluation, and the operator is expected to demonstrate competency in each of the items listed. However, variances may be made in some situations when, in the opinion of an evaluator, site conditions, operational constraints or the demonstrated skill of the operator requires that an item(s) be deleted or added to ensure a comprehensive evaluation. Documentation of any variance in the evaluation, and documentation of satisfactory completion of the evaluation and subsequent certification is to be made on the appropriate Certification Form.

1. **Holds a valid class B Commercial Driver License with air brake endorsement**

2. **Holds a valid category 6A Pesticide Applicator’s Certification**

3. **Performs a thorough pre-op inspection and daily/weekly preventive maintenance, as needed**
   a. Removes keys from ignition for safety
   b. Checks that parking brake is on
   c. Checks that R 297g is in the vehicle
   d. Reviews R 297g for prior failures
   e. Completes R297g correctly (see attached Preventive Maintenance Checklist for relevant items)
   f. Makes note of deficiencies on EM 3; completes EM 3 correctly
   g. Checks that warning and safety decals are in place
   h. Distinguishes when vehicle should not be operated
   i. Verifies vehicle is safe to operate
   j. States all safety warnings for machine
   k. Inspects the following machine components listed below (items #2 - #)
      i. **Engine:**
         1. Checks oil, coolant, power steering, and window washer levels and fills as needed
         2. Checks the radiator fins for cracks, distortion, debris and any signs of leakage
         3. Checks fan for presence and distortion
         4. Checks air restriction indicator (monometer) cleans dust valve daily
         5. Checks that oil and fuel filters are in good condition, secured tight, and without leaks
         6. Checks batteries for corrosion and to be properly secured
         7. Checks that shutters are not bent and are free from debris, if applicable
         8. Inspects condition and tightness of belts
         9. Checks air induction and cooling tubes for presence and tightness, if applicable
        10. Checks turbo charger for leaks and cracks, if applicable
        11. Checks air induction and cooling tubes for presence and tightness, if applicable
        12. Checks turbo charger for leaks and cracks, if applicable
      ii. **Steering and Suspension:**
(1) Checks springs and spring hangers for presence and damage
(2) Checks that shocks are properly attached, are not damaged and are not leaking
(3) Inspects pitman arm, drag link and tie rod ends for tightness
(4) Checks power steering assist cylinder, if applicable, and steering box for leaks and that it is secured to frame
(5) Checks tires for tread depth, proper inflation and obvious defects
(6) Checks wheels/rims for tightness, cracks, valve stem alignment, slippage or any damaged, broken or missing parts
(7) Checks wheel hub for proper lube levels

iii. Rear Axle and Suspension
(1) Checks springs and spring hangers for presence and damage
(2) Inspects drive shaft visually for damage, debris or any sign of failure
(3) Checks differential and wheel seals for leaks
(4) Checks for presence and condition of axle vent
(5) Checks tires for tread depth, proper inflation and obvious defects
(6) Checks wheels/rims for tightness, cracks, valve stem alignment, slippage or any damaged, broken or missing parts
(7) Checks between dual wheels for any foreign materials, misalignment or any hidden damage
(8) Checks fenders and mud flaps for presence and condition

iv. Exterior
(1) Checks fuel tank for damage or leaks and fuel levels
(2) Checks that lights, warning lights, and reflectors are clean and intact, properly attached, and operating correctly
(3) Checks exhaust system for damage or leaks
(4) Checks Power Take Off (PTO) system visually for leaks and any broken, damaged or missing parts

v. Cab Interior
(1) Enters cab using steps and grab handles for safety (3 point climbing procedure)
(2) Performs general safety check including unsecured objects
(3) Describes functions of controls
(4) Inspects presence and condition of seat belts and other safety equipment, including horn, charged and secured fire extinguisher, and first aid kit
(5) Inspects for excessive free play in the steering wheel
(6) Inspects for 1½ inch clutch free play (if applicable)
(7) Inspects for clean and undamaged glass and mirrors, working wipers/washers and heater/defroster
(8) Checks two-way radio for proper adjustment and operation
(9) Demonstrates an entire Air Brake check of the system, including how to check parking and service brakes (i.e.: low air warning - maximum air loss for service brake, automatic parking brake application)

I. Checks for presence and condition of safety equipment
i. emergency spill kit
ii. protective gloves, as required by label on product
iii. fire extinguisher
iv. respiratory protection, as required by label on product
v. extra labels and MSDS sheets
m. Chemical injection system
i. Checks injection tanks for leaks or damage
ii. Checks injection tanks plumbing for leaks, tight fittings
iii. Visually inspects belts (2) on injection pump
iv. Checks fluid levels in injection pumps
n. Recirculation system
i. Checks recirculation plumbing for leaks or damage
ii. Checks filters (4), cleans screens if necessary
iii. Visually check belts (2) on 5 horse engine
o. Radiarc spray head
i. Uses proper nozzles for application
ii. Checks connections, nuts, bolts for tightness
iii. Checks that nozzles are clean and without chemical build-up

4. **Describes characteristics and safety requirements of each chemical used in the program**
   a. Health hazards and handling requirements
   b. First aid
      i. route of entry
      ii. determine treatment
      iii. application of treatment
   c. Emergency response for spills
   d. Mode of action for each chemical
   e. Formulation (liquid or powder)
   f. Volatility of chemical
   g. Effects of pesticide to the target (total kill, partial or growth regulator)
   h. Soil fate of pesticides

5. **Identifies various types of vegetation to control and specific non-target vegetation**
   a. Identifies various types of vegetation to control and the chemical application rate for each species
      i. grass
      ii. creeping vines
      iii. woody vines
      iv. broadleaf weeds
      v. brush and trees
   b. Identifies non-target species
      i. trees
      ii. brush
      iii. grasses
      iv. broadleaf weeds

6. **Loads and prepares chemicals for operation**
a. Loads water tank
b. Loads and prepares chemicals without spilling
   i. mixes chemicals, water and adjuvants for application according to manufacturer’s instructions
   ii. Loads adjuvants (dye, surfactant, drift control agents) as necessary

7. **Calibrates 440 console, 700 console and hand gun**
   a. Programs 440 console
      i. Places injection pump in recirculation mode
      ii. Places piston stroke adjustment at proper setting
      iii. Determines and enters the settings for:
         1. swath width
         2. speed calibration number (unique to truck)
         3. meter calibration number for flow meter (unique to vehicle)
         4. valve calibration number
         5. carrier rate number (1&2)
         6. carrier tank volume
   b. Programs 700 console
      i. Primes the injection pump
      ii. Determines the setting for the injection pump for the chemical used and application rate
      iii. Determines and enters the settings for:
         1. swath width (1, 2 and 3)
         2. speed calibration (unique to truck)
         3. meter calibration (1 & 2)
         4. valve calibration numbers
         5. chemical 1 & 2 calibration
      iv. Calibrates pumps to determine meter calibration number (takes volume measurement off pump)
   c. Conducts self test of system
      i. Makes adjustments (if necessary) to radiarc spray head to adjust spray pattern
         1. Even pattern across length of swath width
         2. Volume output and spray pressure in desired range
      ii. Adjusts pattern with largest nozzle possible to minimize drift
   d. Calibrates hand gun according to applicator’s speed of walk, spray technique and other habits
      i. On pre-measured area, runs system on hand gun while applicator sprays evenly as possible
      ii. From console, determines chemical and carrier output per acre
      iii. Enters appropriate settings into consoles (swath width or meter calibration numbers)

8. **Assesses environmental conditions prior to and during application**
   a. Determines if weather conditions are acceptable
      i. no rain in forecast
      ii. low wind speed
      iii. no people around
   b. Assesses soil conditions and effects of application of chemical
c. Drives through application area first to locate all water areas
d. Frequently monitors weather conditions (for wind change, storm coming)

9. **Applies chemical to intended target evenly and without drift**
   a. Truck/Radiarc spraying
      i. Directs appropriate vehicle speed for swath width (for no drift)
      ii. Directs vehicle placement so that:
          (1) Obstruction of traffic on roadway is minimized
          (2) No chemical is applied on pavement
          (3) Chemical is placed in appropriate areas (according to manufacturer's label)
      iii. Operates equipment so that spray pattern is even and without drift
      iv. Applies product with pattern as low to ground as possible (for particular application)
      v. Does not allow spray to enter any water areas and keeps chemicals out of buffer zones
         (when required)
      vi. Application is on target (sprays areas intended to be treated)
      vii. Adjusts swath width continually for various terrain conditions to maintain proper spray
           pattern and application rate
      viii. Monitors chemical and carrier output per acre; makes proper adjustments to maintain
            correct ranges
   ix. Properly treats guiderail area to control vegetation
      (1) Guiderail will be visible after treatment takes effect
      (2) Vegetation does not restrict drainage
      (3) Brush is not located in undesirable locations of right of way
      (4) In distinguishing target areas, avoids areas such as farmlands and private property
   x. Monitors flow indicator lights (will go out when system runs out of chemical)
   xi. Monitors vacuum gauges (2) and pressure gauges (to make sure they are in proper ranges)
   xii. Makes proper adjustments for obstacles, upcoming streams or water bodies

b. Hand Gun
   i. Moves valve to divert flow from Radiarc head to hand gun
   ii. Makes appropriate console and pump adjustments for hand gun operation for applicator's
       spray habits and techniques
   iii. Maintains even spray pattern on target with minimal drift
   iv. Divides large areas into sections; keeps track of what has been covered; maintains even
       coverage
   v. Correctly judges application rate based on visual inspection of degree of saturation of target
   vi. Makes smooth, even movements with arm/gun during application
   vii. Applies product within labeled rates (not over or under applied)
   viii. Maintains awareness of flow sensor, makes sure it is operating properly

10. **Shuts down and cleans equipment**
    a. Reads application spray data from console and records time of day stopped and ending location
    b. Flushes main spray line
       i. Places dye in chemical line
       ii.Flushes line until spray solution runs clear
    c. Shuts down auxiliary engine
d. Drains chemical tanks back to either original containers if not contaminated, or if mixed (dry flowables), into properly labeled storage container.

e. Rinses tanks if applicable; if changing programs, drains tanks and washes system thoroughly with ammonia

f. Triple rinses containers and disposes of properly

g. Washes all exposed skin areas thoroughly with soap and water

h. Completes post operational check according to local policy

11. **Completes all appropriate records**

   a. Completes daily log for truck operations, noting unusual situations, contacts with the public/landowners, equipment breakdowns/repairs, spills, work to be done under a separate program, other miscellaneous information or comments

   b. Correctly enters application information in log

      i. mile marker and landmark reference in log

      ii. time of day

      iii. application rates

      iv. target (plant type and location, such as guiderail, brush, parking area)

   c. Properly completes form R 306