The Mosaic Company
3033 Campus Drive, Suite E490
Plymouth, MN 55441

Lead Containing Materials
Appendix D

Lead Flow Chart Description

1 EMERGENCY VS. NON-EMERGENCY

If there is an immediate safety issue or threat to the facility that cannot be delayed, the emergency procedure will be followed.

Most work should fall in the Non-emergency category.

2 NON-EMERGENCY PROCESS

2.1 The Project Manager, Maintenance Planner, or Supervisor creates a plan once the work order or project work is requested.

2.2 If no surface coatings (paint or galvanized surfaces) are being disturbed, plant personnel can complete the work. Disturbing surface coatings includes welding, cutting, grinding, sandblasting, abrasive blasting, painting or removing paint, using powder-actuated tools, soldering, using brass, bronze, or solder, or other maintenance activities affecting lead containing materials.

2.3 If surface coatings are being disturbed, the surface coatings need to be tested. Testing can be performed by a Mosaic XRF Tech or by a contractor (Acuren) XRF Tech.

2.4 The Project Manager, Maintenance Planner, or Supervisor will escort the Technician to each location where surface coatings are going to be disturbed.

2.5 The Technician will test the surface coatings in the locations identified by the Project Manager, Maintenance Planner, or Supervisor and report the results.

2.6 The Project Manager, Maintenance Planner, or Supervisor will verify that testing results are representative of the locations where surface coatings will be disturbed.

2.7 If lead and chromium are absent, plant personnel can complete the work. The Project Manager, Maintenance Planner, or Supervisor will file the test results per document controls.

2.8 If lead and/or chromium are present, the Project Manager, Maintenance Planner, or Supervisor will develop a scope of work for abatement.

2.9 The Project Manager, Maintenance Planner, or Supervisor will contact an abatement contractor to perform the abatement.

2.10 The abatement contractor will coordinate the job schedule with the Project Manager, Maintenance Planner, or Supervisor.

2.11 The abatement contractor will coordinate with an approved air monitoring contractor when required by the Industrial Hygiene Manager.

2.12 Once the Project Manager, Maintenance Planner, or Supervisor has agreed to the schedule, when the abatement contractor arrives at the facility, escort them to the work site.

2.13 The abatement contractor will prepare the surfaces for work by removing the surface coatings. The air monitoring contractor will monitor lead levels where necessary.

2.14 When the abatement contractor is completed, the abatement contractor will notify the Project Manager, Maintenance Planner, or Supervisor.

2.15 The lead contaminated waste will be sealed in a container and delivered to the Project Manager, Maintenance Planner, or Supervisor.

2.16 The abatement contractor will prepare and send an abatement/air monitoring report to the Project Manager, Maintenance Planner, or Supervisor as well as the Industrial Hygiene Manager.

2.17 The Industrial Hygiene Manager will review the abatement/air monitoring report and file it per document controls.

2.18 The Project Manager, Maintenance Planner, or Supervisor will file the abatement/air monitoring report per document controls.

2.19 The Project Manager, Maintenance Planner, or Supervisor will authorize the work to be completed by plant personnel.

2.20 The Project Manager, Maintenance Planner, or Supervisor will deliver waste container from abatement contractor to Environmental Health Services representative.

2.21 Environmental Health Services will characterize the waste by performing TCLP analysis.

2.22 If TCLP analysis reveals the waste is hazardous, Environmental Health Services will dispose of waste per hazardous waste procedures.

2.23 If TCLP analysis reveals the waste is not hazardous, Environmental Health Services will dispose of waste in regular waste recepticles.

3 EMERGENCY PROCESS

3.1 The Supervisor identifies an emergency repair is necessary and creates a plan.

3.2 If no surface coatings (paint or galvanized surfaces) are being disturbed, plant personnel can complete the work. Disturbing surface coatings includes welding, cutting, grinding, sandblasting, abrasive blasting, painting or removing paint, using powder actuated tools, soldering, using brass, bronze, or solder, or other maintenance activities impacting lead containing materials.

3.3 If surface coatings are being disturbed, the Supervisor will determine if there is time to test for lead/chromium.

3.4 If there is not time to test, assume lead/chromium are present and skip to 3.11.

3.5 If there is time to test, the Supervisor will identify if an XRF Technician (Mosaic or Acuren) is available.

3.6 If an XRF Technician is not available, and one cannot be called in to test, assume lead and chromium are present and skip to 3.11.

3.7 If an XRF Technician is available, escort the Technician to each location where surface coatings are going to be disturbed.

3.8 The Technician will test the surface coatings in the locations identified by the Supervisor and report the results.

3.9 The Supervisor will verify that testing results are representative of the locations where surface coatings will be disturbed.

3.10 If lead and chromium are absent, plant personnel can complete the work. File the test results per document controls.

3.11 If lead and/or chromium are present, a trained individual with required PPE must perform work.

3.12 The trained individual will don appropriate PPE to perfrorm work. This will include supplied air respiratory protection.

3.13 The trained individual will prepare the site to prevent contaminats from migrating outside of the work area.

3.14 The trained individual will perform the necessary work.

3.15 The trained individual will collect and containerize waste.

3.16 The trained individual will deliver waste container from abatement contractor to Environmental Health Services representative.

3.17 Environmental Health Services will characterize the waste by performing TCLP analysis.

3.18 If TCLP analysis reveals the waste is hazardous, Environmental Health Services will dispose of waste per hazardous waste procedures.

3.19 If TCLP analysis reveals the waste is not hazardous, Environmental Health Services will dispose of waste in regular waste recepticles.