

Proposal for

INTERAGENCY REGULATION AND OVERSIGHT OF METAL SHREDDING FACILITIES

California Metal Shredder Coalition

*The members of the California Metal Shredder Coalition (**Coalition**) own and operate the six major metal shredding facilities in the state. The Coalition has been engaged in an effort with the Department of Toxic Substances Control (**DTSC**) to develop a regulatory framework that can replace the existing system, level the environmental playing field, and address concerns raised by the Legislature and DTSC. The Coalition acknowledges that DTSC has authority to regulate hazardous waste produced by metal shredding facilities and is presenting this proposal in an effort to coordinate DTSC's regulatory oversight with that exercised by other State, regional and local agencies.*

The Coalition's proposal achieves the following important goals:

- It addresses all issues associated with metal shredding facilities that have a potential to affect public health or the environment.
- It recognizes the role that other State, regional and local agencies/jurisdictions have in the regulation of the industry.
- It recognizes the nature and role of the metal shredding industry in the state's recycling and waste management programs and preserves metal shredding facilities' ability to operate in a competitive global metals market. The metal shredding industry contributes to the conservation of energy and natural resources, reduces greenhouse gas emissions, provides jobs for thousands of people, and contributes to society through the beneficial recycling of millions of end-of-life cars, household appliances and other metal products.

This Proposal describes an efficient and coordinated approach to regulation of metal shredding facilities based on the development and execution of Memoranda of Agreement (**MOA**) between DTSC and each State, regional and local agency that has jurisdiction over some aspect of metal shredding facility operations. This approach is patterned after the approach prescribed by the Legislature in 2013 for regulation and oversight of oil and gas well stimulation treatment activities conducted in the State. See Pub.

Res. Code, § 3160(c). As is the case with metal shredding facilities, numerous State, regional and local agencies have jurisdiction over well stimulation treatment operations, necessitating close coordination between the agencies in order to avoid overlapping, duplicative and potentially conflicting regulation. The language of Section 3160(c) is instructive:

- (1) Through the consultation process described in paragraph (1) of subdivision (b), the division shall collaboratively identify and delineate the existing statutory authority and regulatory responsibility relating to well stimulation treatments and well stimulation treatment-related activities of the Department of Toxic Substances Control, the State Air Resources Board, any local air districts, the State Water Resources Control Board, the Department of Resources Recycling and Recovery, any regional water quality control board, and other public agencies, as applicable. This shall specify how the respective authority, responsibility, and notification and reporting requirements associated with well stimulation treatments and well stimulation treatment-related activities are divided among each public entity.

- (2) On or before January 1, 2015, the division shall enter into formal agreements with the Department of Toxic Substances Control, the State Air Resources board, any local air districts where well stimulation treatments may occur, the State Water Resources Control Board, the Department of Resources Recycling and Recovery, and any regional water quality control board where well stimulation treatments may occur, clearly delineating respective authority, responsibility, and notification and reporting requirements associated with well stimulation treatments and well stimulation treatment-related activities, including air and water quality monitoring, in order to promote regulatory transparency and accountability.
- (3) The agreements under paragraph (2) shall specify the appropriate public entity responsible for air and water quality monitoring and the safe and lawful disposal of materials in landfills, include trade secret handling protocols, if necessary, and provide for ready public access to information related to well stimulation treatments and well stimulation treatment-related activities.
- (4) Regulations, if necessary, shall be revised appropriately to incorporate the agreements under paragraph (2).

Copies of the MOAs executed by the Division of Oil, Gas, and Geothermal Resources (**DOGGR**) are provided as attachments to this proposal, including the MOA between DOGGR and DTSC.

Similarly, SB 1249 requires DTSC to recognize the regulatory authority of other agencies:

(g) Nothing in the alternative management standards authorized by this section is intended to duplicate or conflict with other laws, rules, or regulations adopted by other state agencies or affected local air quality management districts. The department shall, as much as possible, align the alternative management standards with the laws, rules, and regulations of other state agencies or affected local air quality management districts. Health & Saf. Code, § 25150.82(g).

Consistent with this legislative mandate to respect the regulatory authority of other agencies with jurisdiction over metal shredding operations, DTSC's authority to adopt alternative management

standards under SB 1249 was expressly limited to "hazardous waste management activities within the department's jurisdiction." Health & Saf. Code, § 25150.82(c). SB 1249 did not expand the scope of DTSC's jurisdiction at metal shredding facilities nor did it amend the definition of "hazardous waste."

Description of Metal Shredding Facilities

Figure 1 depicts a typical metal shredding facility. Exempt scrap metal (**Feedstock**) is introduced into an electric hammermill (**Shredder**) for the purpose of reducing the scrap metal to a size that is amenable to separation and removal of ferrous and non-ferrous metals. The material exiting the Shredder (**Aggregate**) is a mixture that includes all metallic and non-metallic components of the Feedstock processed through the shredder and is an "in-process" manufacturing material.

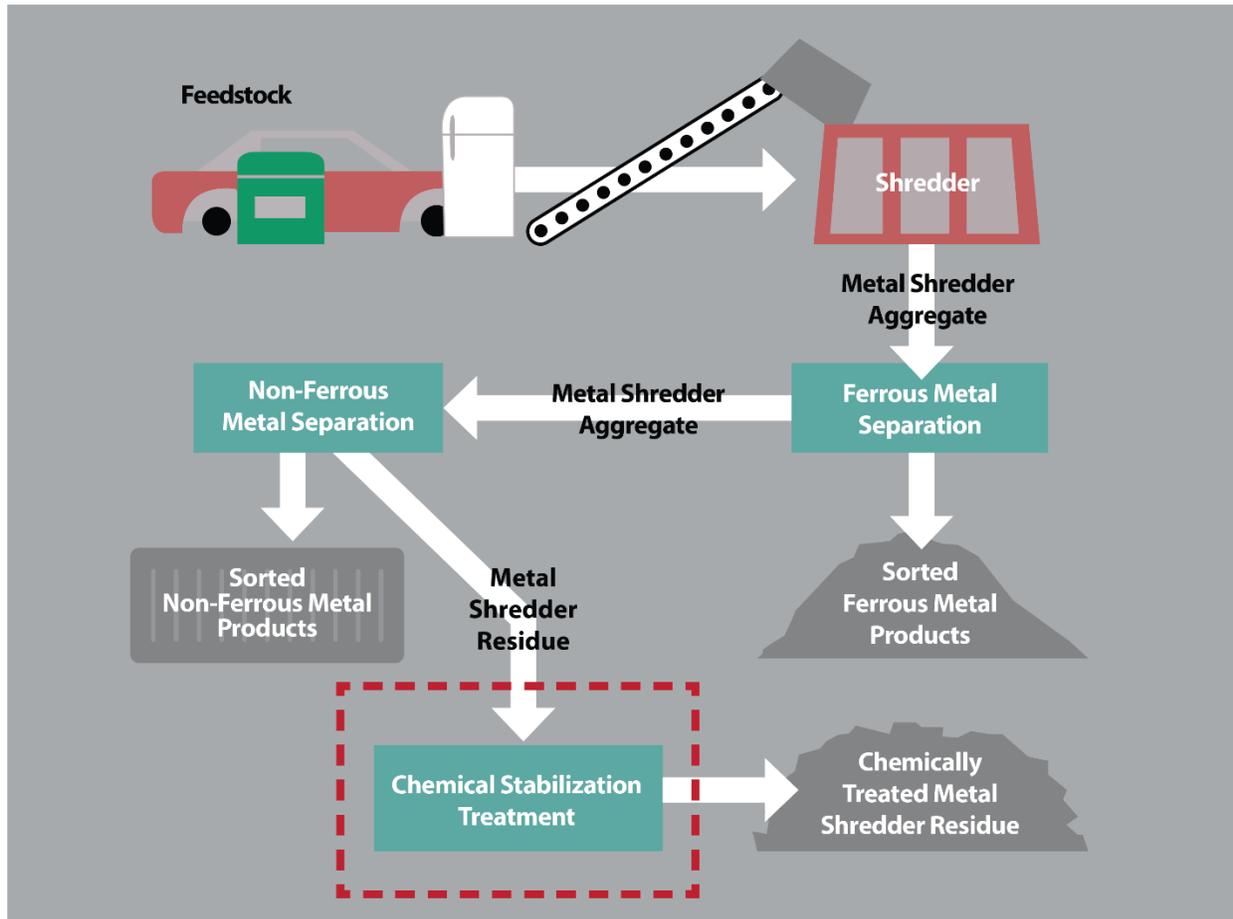
Ferrous and non-ferrous metals are separated and removed from **Aggregate** using magnets (**Ferrous Metal Separation**), eddy current separators, optical sorters and other advanced technologies (**Non-Ferrous Metal Separation**). The process of collection and segregation of ferrous and non-ferrous metal is the essence of scrap metal recycling activity. The metal products that are produced by metal shredding facilities (**Sorted Ferrous Metals** and **Sorted Non-Ferrous Metals**) are sold in the global commodity metals market and transported to customers all over the world.

Metal Shredder Residue is the material that remains after all ferrous and non-ferrous metal processing operations have been completed and the recoverable metals have been collected from the **Aggregate**. **Metal Shredder Residue** exhibits a characteristic of hazardous waste under California law due to the remaining metal content. The residue is chemically stabilized through use of silicates and cementitious materials (**Chemical Stabilization Treatment**) to reduce the solubility of residual metals.

Chemically Treated Metal Shredder Residue is currently classified by DTSC as a nonhazardous waste due to its inert nature and low risk, and is used as alternative daily cover in a number of municipal landfills around the state.

The treatment of **Metal Shredder Residue** that is subject to regulation by DTSC is depicted by a dashed red line in **Figure 1**.

Figure 1



Regulatory Framework for Addressing Operational Issues

DTSC has identified the following operational issues at metal shredding facilities:

- (1) Preventing off-site migration of light fibrous material (LFM).
- (2) Preventing fires or explosions.
- (3) Preventing migration of contaminants to soils, surface water or groundwater.
- (4) Preventing migration of contaminants to air.

Each of these issues is addressed by the Coalition proposal discussed below. The proposal highlights the role of each agency that has jurisdiction over specified activities at metal shredding facilities.

1. DTSC: Management of Metal Shredder Residue.

The **Chemical Stabilization Treatment Process** shall be subject to regulation under DTSC's Permit by Rule (PBR) program. The PBR regulations authorize treatment of solid, metal-containing wastes by chemical stabilization using silicates and/or cementitious types of reaction. 22 CCR § 67450.11(a)(4)(A).

PBR notification forms will be required to be submitted by a date certain.

Untreated **Metal Shredder Residue** shall either be: (i) conveyed directly from the **Non-Ferrous Metal Separation** plant to the treatment system, without prior stockpiling; or (ii) stockpiled under cover, on a concrete or other impervious surface, pending introduction to the treatment system. Untreated **Metal Shredder Residue** may not be stockpiled for more than ten (10) days prior to being treated.

Regulation of the treatment process under the PBR Program will preserve the zoning and land use status of metal shredding facilities.

2. Air Pollution Control Districts: Control of Particulate and Other Emissions, including Light Fibrous Material.

Particulate and other pollutants emitted by metal shredding facilities, including stack emissions and fugitive emissions associated with scrap metal shredding, separation and removal operations, shall be regulated pursuant to Authorities to Construct and Permits to Operate issued by the appropriate Air Quality Management District or Air Pollution Control District and by applicable rules and regulations promulgated by the Districts. These requirements also apply to cement silos and other equipment associated with metal shredder residue treatment operations. Existing air quality regulations prohibit the creation of public nuisances and visible emissions. Operating permits contain specific emission limits based on the attainment status of the shredder location.

Some or all of the Best Management Practices and improvements listed below (**BMPs**) have been implemented at metal shredding facilities, as needed to prevent off-site migration of LFM. Many of these BMPs are contained in legally enforceable Emissions Minimization Plans or Dust Control Plans that metal shredder facilities are required by law to implement. In addition, these BMPs are contained in legally enforceable Storm Water Pollution Prevention Plans (see Section 4 below). Air quality permits and/or regulations could be amended to include these and other enforceable Best Management Practices as needed to ensure statewide consistency and to address concerns raised by DTSC.

- Construction of an enclosure around the **Shredder**, abated by an emission control system that is permitted by the applicable Air District. The design of the enclosure may vary depending on site-specific conditions.
- Construction of an enclosure around **Non-Ferrous Metal Separation** operations, including an associated emission control system, as needed. The design of the enclosure may vary depending on site-specific conditions.
- Implementation of housekeeping programs to minimize on-site accumulations of LFM, including regular facility inspections, sweeping of paved areas, and manual or other means of removal of LFM from unpaved or hard to reach areas.
- Implementation of dust control programs, including use of water sprays, sprinklers, water trucks, etc. to control areas where LFM may be generated.
- Construction of covers and/or belly pans on conveyor systems to control spillage and potential airborne dispersal of LFM. Regular removal of in-process material that collects below conveyor drop points. Conveyors need to remain accessible in order to clear product jams, perform repairs and conduct regular maintenance.
- Use of windscreens and/or berms.
- Use of flexible “freezer strips” as feasible over openings in buildings and equipment where access is needed on a regular basis.
- Conducting MSR treatment operations inside a building or under cover.
- Stockpiling treated MSR inside a building or other wind-shielded area prior to transportation off-site.
- Conducting MSR loading operations inside a building or other wind-shielded area and tarping all trucks that are used to haul treated residue to the landfill.

In addition, metal shredding facilities that are located in designated disadvantaged communities are subject to evaluation by the Air Districts pursuant to AB 617, and potential risk reduction plans required by Air District regulations.

3. Local Fire Department: Prevention of Fires/Energy Releases.

The risk of fires at metal shredding facilities shall continue to be regulated by local fire departments pursuant to local fire codes and ordinances. Metal shredding facilities strive to minimize the potential for fires to the extent possible. All California metal shredding facilities are regulated by local Fire Departments and adhere to fire prevention and control plans developed in accordance with applicable rules or guidelines and in close consultation with the Fire Departments. All facilities partner with local fire departments to familiarize the departments with metal shredding facilities, site operations and other pertinent site conditions, for the purpose of maximizing the effectiveness of their response if a fire does occur.

In addition to applicable fire codes, the following practices are standard in the industry in California and are implemented at all Coalition shredding facilities. These measures are effective in minimizing the potential for fires and for appropriately responding to fires when they do occur to minimize their potential impact:

- Enforcement of scrap acceptance policies, including inspection of incoming loads of scrap metal and rejection of all prohibited items. Inspectors are trained to look for batteries, closed

cylinders or other items that may act as an ignition source or cause an energy release.

- Implementation of procedures to properly de-pollute end-of-life vehicles and appliances or to verify that such items have been de-polluted prior to receipt. Fuels, coolants, lubricants, refrigerants and other “materials requiring special handling” must be removed prior to shredding.
- Operating practices to reduce the potential for energy releases inside the shredder, e.g., thorough de-pollution of end-of-life vehicles, screening of infeed for compressed gas cylinders, etc.
- Management and height control of material stockpiles prior to shredding.
- Maintenance of fire breaks around material stockpiles prior to shredding.
- Use of infrared cameras or other devices capable of detecting temperature increases in infeed and in-process material stockpiles.
- Regular facility walk-throughs to look for potential fire hazards, signs of smoke or fire.
- Use of non-sparking tools when working around potentially flammable materials.
- Prohibition on smoking in operating areas.
- Maintaining equipment on-site that can be used to fight incipient fires, and other equipment that can be used by local fire department responders, including staging of fire hydrants, hoses, and fire extinguishers at appropriate locations.
- Pre-staging of fire-fighting foam at the shredding facilities for use by local fire departments.
- Development and implementation of emergency response plans, including internal communication systems.
- Employee training in managing incipient-stage fires.

4. Regional Water Quality Control Boards: Prevention of migration of contaminants to soils, surface water or groundwater.

Measures to prevent potential migration of contaminants to soils, surface water or groundwater shall be regulated by local Regional Water Quality Control Boards (**Water Board**). Operations at California metal shredding facilities are overseen by the Water Board as necessary to ensure protection of water quality. Currently, most operating areas within Coalition shredder facilities are hard-surfaced, typically with concrete or overlying structures. Where contaminated soils exceeding applicable cleanup standards have been found in unpaved or uncovered areas, the soils have been remediated through excavation, fixation and/or capping. The

primary constituents of concern at metal shredding facilities tend to be tightly adsorbed to upper horizons of on-site soils and do not typically result in impacts to groundwater.

All shredder facilities are subject to either the General Industrial Stormwater Permit or have obtained individual permits to discharge to the local sanitary sewer or publicly owned treatment works (**POTW**) or to surface waters.

All shredding facilities are required to develop and maintain Storm Water Pollution Prevention Plans (**SWPPP**) which are subject to review and enforcement by the Water Board. In addition, local municipalities and NGOs have enforcement rights under the Clean Water Act. SWPPPs vary from facility to facility, but the following practices tend to be standard in the industry in California and are effective in minimizing the potential impacts to exposed soil, surface water, or groundwater:

- In many cases, facility operating surfaces are already hard-surfaced by concrete or structures. In other cases, work is underway to expand concrete or other hard surfacing so that substantially all operations are conducted on concreted/paved areas.
- Facility-specific storm water management plans provide for the capture and beneficial reuse of storm water on-site for dust control and shredder mill cooling. Some facilities are zero discharge, meaning they are able to capture, store and evaporate/reuse all storm water at the facility (e.g., up to a 100-year storm event).
- As needed, on-site stormwater treatment systems are utilized to reduce pollutant concentrations in stormwater to meet applicable regulatory discharge criteria.
- Conveyors and other material handling equipment is covered and/or contained to prevent exposure of stormwater to industrial operations.
- Housekeeping, maintenance and other means are utilized to reduce vehicle track-out (sweeping, rumble mats, wheel washes, etc.).

5. Certified Unified Program Agencies: Oversight of CUPA Programs.

Local agencies/jurisdictions designated as CUPAs shall be responsible for oversight of all programs within the scope of the CUPA Program. Metal shredding facilities routinely generate wastes (e.g., used oil, sweepings, debris, spent solvents, etc.) that must be managed in accordance with applicable regulations. All facilities also maintain inventories of regulated hazardous materials and are required to submit/update Hazardous Material

Business Plans on an annual basis through the California Environmental Reporting System (**CERS**). In addition, many facilities have aboveground petroleum storage tanks that are regulated under the Aboveground Petroleum Storage Act, including the requirement to implement a Spill Prevention and Countermeasures Control (**SPCC**) Plan. All of these plans and requirements are legally enforceable by the CUPAs.

Implementation Concepts

As noted at the beginning of this proposal, the Legislature authorized DTSC to adopt alternative management standards for metal shredding facilities “for hazardous waste management activities within the department’s jurisdiction.” The Legislature further required DTSC to align the alternative management standards “as much as possible” with the laws, rules, and regulations of other agencies to avoid duplication and conflict. While DTSC decided not to adopt alternative management standards under SB 1249, the Coalition believes the principles articulated under SB 1249 are equally applicable to DTSC’s current regulatory development efforts. These principles of interagency coordination and cooperation should be documented and confirmed in a series of formal agreements (**Memoranda of Agreement**) between DTSC and the other public agencies with jurisdiction over metal shredder facilities (collectively, **Participating Agencies**).

Under the MOA, the agency with primary jurisdiction over specified activities or operations at metal shredding facilities would have primary responsibility for oversight of those operations, through the exercise of its rulemaking, permitting, inspection and enforcement authorities. In the event an agency identifies an alleged violation of applicable laws or regulations within the scope of its jurisdiction, that agency would have responsibility for taking appropriate action. If the violation was observed by an agency that does not have primary jurisdiction, that agency should promptly refer the violation to the agency with primary jurisdiction. Notice of the alleged violation should also be sent to each Participating Agency. The agency with primary jurisdiction would also be obligated to provide each Participating Agency with a description of how the matter was resolved. Specific time frames should be established for providing the required notices.

If an agency with primary jurisdiction over an alleged violation fails to pursue enforcement or otherwise require the facility to implement appropriate corrective measures, or if DTSC believes that the corrective measures are insufficient to address the issue, DTSC would have the right under the MOA to elevate the matter within the agency with primary jurisdiction and, if necessary, pursue independent action within DTSC’s authority.

Other relevant provisions from the well stimulation treatment or other interagency agreements should be incorporated into the MOAs relating to the regulation and oversight of metal shredding facilities.