2229 Main Street Oversight Committee

Members: Paul Boehm, Ray Bruttomesso, Kerry Diskin, Len Rappoli, Pam Rockwell, Fred Seward, Steve Verrill, Board of Selectmen liaison Jeffrey Wieand

The 2229 Main Street Oversight Committee was formed to monitor the cleanup at Starmet, formerly Nuclear Metals, Inc. (NMI), a former defense contractor that is now a superfund site. The Environmental Protection Agency (EPA) is the agency in charge of the cleanup. Currently EPA is overseeing a Remedial Investigation and Feasibility Study (RI/FS). The investigation will determine the extent of the contamination at the site and the pathways by which the public and wildlife may be exposed to risk. The feasibility study will develop possible cleanup strategies. The EPA has hired the consulting firm *de maximis inc.* to conduct the RI/FS.

The first part of the Remedial Investigation is mostly completed and has determined that the site is contaminated with depleted uranium, beryllium, and other laboratory chemicals. There are also PCBs located in most of the areas where there is uranium contamination in surface soil, which means that these areas will definitely trigger a remediation action. (These areas are all close to buildings and enclosed by fences.) A major plume of uranium in the ground above the bedrock has also been identified heading from the former holding basin, under the buildings, and towards the Assabet River.

During 2011, the remediation effort at Starmet has reached two major milestones: a preliminary Human Health Risk Assessment has been developed for the site, and the company Starmet has vacated the buildings and handed over control to the EPA so that the buildings can be removed.

The committee began its work in January of 2011 developing our final comments on the Baseline Environmental Risk Assessment (BERA) for the site. Most contamination that affects wildlife at the 2229 Main Street location also poses a risk to human beings, and will be cleaned up, but the site possesses a unique ecological feature – a sphagnum bog. This is an acidic wetland with a thick mossy mat suspended in it that is the home to frogs, turtles, bugs, and fish. It is also a food supply for birds and mammals. There is also a man-made cooling pond on the site that is currently classified as wetlands, but will need to be dredged in order to be cleaned. The committee is concerned that the boundaries for defining areas of risk in the BERA are not the same boundaries that are used to determine risk to human health, and that may allow some mildly contaminated areas in the wetlands to be averaged out. The EPA reflected this concern in their final comments about the BERA.

In March 2011, *de maximis inc.* distributed the first version of the Human Health Risk Assessment (HHRA) for the site for a limited review. Committee members spent April and May reviewing this document and developing comments. Overall, the committee was pleased with the detail and care that the document reflected. The committee was concerned that some potential exposure pathways may be underestimated at the site. In particular, the committee repeated its concern that differences in the mapping of exposure areas between the environmental (BERA) and human (HHRA) risk assessments could allow certain contaminated areas along the border between the cooling pond and the bog to be averaged out and avoid a cleanup. Geologist Len Rappoli felt that exposure time to dust may be underestimated for homeowners who also do their own construction at the site and for children who might play in rainy weather. He also pointed out that EPA was not requiring the use of the more protective Massachusetts drinking water standard for certain chemicals of concern, and was not addressing the risk of vapor intrusion in future buildings at the site proactively. The committee was also skeptical that the exposure amounts for a home gardener took into account the dirt that might stick to the surface of root vegetables. Astrophysicist Fred Seward also pointed out a problem with the calculation of the radiation exposure for background. The EPA is reviewing these comments.

During the summer of 2011, Starmet sold their beryllium alloy division and moved their beryllium processing equipment to the new owner's location. Starmet informed the EPA that they intended to vacate their buildings by November 1st to allow EPA to remove the buildings. In 2008, EPA had developed an Engineering Evaluation and Cost Analysis to remove the buildings and dispose of the building waste off site. There is radioactive contamination in all parts of the buildings, including offices, at the site - due mostly to a leaky roof and standing water. In some areas, water is above the level of the electrical outlets. This is a particular danger to emergency workers who might have to respond at the site. This summer contracts between the EPA and the principal responsible parties for the site were signed and the funding for the building removal was secured.

In September 2011, the committee informed the Board of Selectmen about activities at the site that might be visible to passers by so that the public could be informed that these activities were not a sign of an emergency at the site. To enhance security, *de maximis inc.* installed a fence at the site around a wider area, removed trees and brush that interfere with visibility along the fences and by buildings, and asked the Massachusetts Department of Public Health (MDPH) to provide 24 hour security service. *De maximis inc.* also made plans to keep the fire suppression systems in the buildings working over the winter by upgrading the power lines, installing new natural gas lines to supply forced hot air blowers to heat the buildings, and reinforcing the roof.

Starmet did indeed turn over the buildings to the EPA on November 1st and the committee spoke with Town staff and updated our website to inform the public about this change. The EPA updated the committee about their plans for the building removal at a meeting on November 9th. There are new work trailers at the site, and there is more security now that MDPH and EPA are in charge. EPA and *de maximis inc.*representatives are meeting regularly with the Concord Fire Department, the Concord Health Director, and other Town staff to update them on the progress at the site.

If the schedule continues as planned then the contractors will spend this Winter stabilizing the inside of the buildings and removing loose flammable materials. In the Spring and Summer of 2012 large machines and furniture will be packaged, removed from the buildings, and shipped out for disposal. Actual building disassembly will start in 2013. The feasibility study for the remediation of the contaminated soil and groundwater at the entire site is ongoing.

More information about the Starmet cleanup can be found at the following websites. The committee does not have control over the content of these sites:

- **www.nmisite.org** is the website created by the contractor *de maximis inc*. It includes a list of the current activities at the site, including data and maps from the sampling that has been completed.
- The EPA also has a website with historical information. Go to **www.epa.gov/region1/superfund/findsite/fndindex.htm** and search for "Nuclear Metals".
- **www.crewconcord.org** is the website for the environmental advocacy group CREW.