Claymont STEEL

January 30, 2007

John A. Hughes, Secretary
Department of Natural Resources
and Environmental Control
89 Kings Highway
Dover, DE 19901

Re: Secretary's Order 2006-A-0058
Claymont Steel, Inc.

Dear Secretary Hughes,

The referenced Order requires Claymont Steel to provide to the Department certain information no later than January 31, 2007. Please find enclosed a document entitled *Response to Notice of Conciliation and Secretary's Order No. 2006-A-0058 & Mercury Pollution Prevention Plan*.

Please contact the undersigned at 792-5444 with any questions regarding this matter.

Sincerely,

Dana A. LeSage, P.E.
Manager; Energy & Environmental Engineering

cc:
James D. Werner
DNREC
89 Kings Highway
Dover, DE 19901

Brad Klotz
DNREC
715 Grantham Lane
New Castle, DE 19720

RESPONSE TO NOTICE OF CONCILIATION AND SECRETARY'S ORDER No. 2006-A-0058
&
MERCURY POLLUTION PREVENTION PLAN

CLAYMONT STEEL
4001 Philadelphia Pike
Claymont, DE 19703

Submitted to:

Delaware Department of Natural Resources & Environmental Control
89 Kings Highway
Dover, DE 19901

January 30, 2007

Response to Notice of Conciliation and Secretary's Oder No. 2006-A-0058
&
Mercury Pollution Prevention Plan

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1.0 PURPOSE

This plan has been developed in compliance with the requirements of the Notice of Conciliation and Secretary's Order No. 2006-A-0058 ("The Order") issued by the Delaware Department of Natural Resources and Environmental Control. The Order requires that Claymont Steel take actions to reduce mercury emissions from its facility, including the submittal of a Pollution Prevention Plan to reduce the amount of mercury contained in the feed to the Electric Arc Furnace (EAF).

2.0 INTRODUCTION

Claymont Steel is a recycler of approximately 500,000 tons per year of scrap steel. Through a partnership with the Delaware Solid Waste Authority we recycle all used oil filters collected throughout Delaware after they are crushed and drained. We also recycle shredded automobiles and appliances, structural steel, and other types of scrapped steel that may otherwise be bound for a landfill or illegally discarded. By recycling the scrap steel, new steel plate is produced while using less energy than would be used by making the steel from ore. This results in reduced pollutant emissions, saves valuable natural resources, and prevents 500,000 tons of scrap from entering landfills annually. Additionally, Claymont Steel employs over 400 people directly and dozens more as contractors in the Claymont area, and has been a part of the community since 1916.

3.0 BACKGROUND

Around the year 2000, US EPA identified EAF shops as relatively minor sources of mercury emissions. The major source of the mercury emissions can be traced to the scrap metal feedstock that is used to produce steel. The primary source of mercury contamination in scrap metal is from mercury switches used in automobile hood and trunk convenience lighting. When these devices are not removed prior to crushing and shredding the scrapped automobiles, the mercury becomes entrained in the scrap, and volatilized in the melting process. By the time the scrap metal reaches Claymont Steel, it has already been processed and shredded, making it infeasible for Claymont Steel to remove or inspect for mercury. Claymont Steel and other EAF recyclers do not want, nor receive any benefit from, mercury in the scrap feed which is received from scrap metal suppliers throughout the region.

Claymont Steel has identified mercury emissions in our routine emission reports (annual Air Emission Inventory and Toxics Release Inventory) submitted to DNREC and EPA since 2000. In the absence of facility or industry data, the mercury emissions were estimated by using an emission factor published by US EPA. The emission factor was commonly used throughout the industry and by regulatory authorities. Furthermore, the use of EPA emission factors is identified in TRI guidance documents as an appropriate methodology for estimating stack emissions.

Under the supervision of DNREC, Claymont Steel performed a stack test at its facility in January 2006 to measure various emissions from the EAF shop. One of the pollutants

measured during this test was mercury. The test results indicated levels of mercury higher than anticipated as compared to the published EPA emission factor. Based on the testing results, the estimate of on-site mercury air emissions was revised from 36 lbs to 361 lbs for 2005.

Because the scrap feed to an EAF is not homogenous, and because the presence or absence of mercury switches in a particular scrap load is completely unpredictable and variable, no single stack test can provide more than an instantaneous snapshot of mercury emissions and should not be extrapolated to reasonably estimate annual emissions. However, in the absence of additional data, Claymont Steel used its limited data set to revise the mercury emission estimate for the TRI reporting but recognized the need for more data. Accordingly, Claymont Steel conducted an additional round of baseline testing in early December 2006, in order to assess the validity of the first test, and gain a higher degree of statistical confidence in the results.

There presently is no State or Federal regulatory standard for Claymont Steel's mercury emissions. The US EPA is preparing a National Emission Standard for Hazardous Air Pollutants (NESHAP) for Electric Arc Furnaces that will address mercury and other emissions from EAF shops nationally. The NESHAP regulations are required by statute to reflect Maximum Available Control Technology (MACT). The Federal rule as presently drafted has determined that MACT for an EAF is source control, relying on work practice standards and a new national program to remove mercury switches from scrapped automobiles. This national program, described in more detail in Section 6.1 of this document, is a collaborative effort involving regulators, automakers, dismantlers, scrap recyclers, and steel manufacturers, and is estimated to reduce mercury emissions by 75 tons. It is Claymont Steel's intent to work cooperatively with DNREC to reduce our mercury emissions in a significant, expeditious and cost effective manner.

4.0 SELECTION OF CONTROL OPTION

The Order requires Claymont Steel to select one of five alternatives and notify DNREC of the selected compliance alternative by January 31, 2007.

It is Claymont Steel's intent to implement alternative 3(a) from The Order, to design and implement an enhanced pollution prevention program to further reduce the amount of mercury in the feed to the EAF and to reduce emissions of mercury. This option is to be designed and in operation as soon as practicable, but no later than December 31, 2008. Claymont Steel believes this alternative is the most expeditious, cost effective, and environmentally beneficial alternative.

This alternative is known to be implementable and effective in reducing mercury emissions for EAF operations. It is premised on the approach that the US EPA has adopted in the rule establishing Maximum Achievable Control Technology ("MACT") standards for Iron and Steel Foundries ("Foundry MACT"). In that final rule, USEPA concluded that "[t]he only effective method for reducing mercury emissions at iron and steel foundries is scrap metal selection and inspection to prevent mercury contamination

of the furnace charge." 69 Fed. Reg. 21906, 21912 (Apr. 22, 2004). The US EPA is presently drafting a similar MACT Rule for mercury emissions for EAF steel production facilities based on the principle that source control is the only feasible control method. This approach relies on work practice standards and a comprehensive new national program to remove mercury switches from end-of-life vehicles.

Alternative 3(b) that would require an activated carbon injection system was not selected for several reasons. First, this technology is unproven for EAF applications. Much of the development work done with carbon injection has been on municipal solid waste combustion facilities and coal fired power plant facilities. These facilities have significant differences in their flue gas composition from that of EAFs. This difference, along with continuous feed rates, and more compositionally consistent feed in at least the case of coal fired generators, make it easier to control the mercury emissions. We are only aware of one EAF steelmaking facility that has run trials with carbon injection technology. The results of that trial are not presently available. That particular EAF is also of a different design which would not assure transferability. That EAF has a furnace design where the scrap is continuously fed, as opposed to the more typical EAF design as at Claymont Steel where the scrap is fed through batch "charges". A pollutant such as mercury that is primarily volatilized quickly following scrap charging, would be easier to control with a steady, slower emission rate, rather than periodic short bursts of much higher emissions. Finally, concentrating mercury and carbon into the EAF baghouse dust has negative implications for the recycling of the baghouse dust, as discussed in Section 5.0 of this report. Indeed, that recycling process could completely negate any removal achieved at the EAF. The possibility exists that carbon injection could be detrimental to an existing baghouse not specifically designed to operate in conjunction with a carbon injection system. Also, this alternative is a capital intensive approach at a time when the problem is expected to rapidly attenuate over the next decade. According to US EPA, the problem of mercury in the scrap supply is of limited duration. ELVS literature shows that US automakers ceased using mercury switches in domestic vehicles in the 2003 model year. Most foreign car makers stopped using mercury switches many years before that. Accordingly, the problem with mercury switches in scrap metal will begin to diminish as the existing in-use-fleet reach the end-of-life and enter the scrap system over the next 10 to 12 years

Alternative 3(c) would require Claymont Steel to install an alternative pollution control system, that is at least as effective as carbon injection. This alternative was not selected because we are unaware of any such commercially available system.

Alternative 3(d), installation of a hybrid program utilizing a combination of the above alternatives, was not selected, because Claymont Steel believes and US EPA agrees that the source reduction alternative is the only feasible control option and is fully environmentally protective without the added complications and uncertainties of the add-on control system.

Alternative 3(e) to cease operation of the EAF was not selected. This would effectively end Claymont Steel's ability to recycle scrap steel, and have a negative effect on regional recycling markets. It would force Claymont Steel to either fully shut down operations

resulting in the loss of over 450 local jobs, or to function only as a rolling mill by importing semi-finished steel slabs from overseas, resulting in the elimination of at least 200 local jobs from the Delaware economy. Ultimately this alternative would have no beneficial impact on the amount of mercury in the regional environment, as any mercury containing scrap will simply be shifted to the next closest EAF facility and thus emitted there, or large volumes of scrap will simply be dumped either illegally or in a landfill at great expense and detriment to local landfill capacity.

5.0 LIFE CYCLE IMPACTS FROM MERCURY CONTROL OPTIONS

In accordance with The Order requirements, we have reviewed life cycle impacts from the subsequent disposition of baghouse dust under the alternatives of source reduction, and installing an activated carbon injection system. This section summarizes the reasons why Claymont Steel concludes that control of mercury emissions from EAF operations by source reduction is environmentally preferable to installing add-on emission controls.

Claymont Steel utilizes a large baghouse to collect emission control dust from the EAF operation. This collected EAF dust is sent to a nearby Pennsylvania facility which utilizes a process known as High Temperature Metal Recovery (HTMR) to separate, collect, and recycle the metals contained in the dust. The HTMR process successfully recycles millions of pounds of zinc and lead annually from Claymont Steel and other EAF facilities that would otherwise be disposed in a landfill. The HTMR process is designated as Best Demonstrated Available Technology ("BDAT") for treating EAF baghouse dust by the US EPA.

If a control system such as carbon injection were installed and found to be effective, it would remove much of the mercury by sorbing it to the activated carbon particles and filtering it out in the baghouse. This would concentrate the mercury into the collected EAF baghouse dust. While this could be considered a successful result at the EAF facility, it would have environmentally unfavorable results at the HTMR facility when the dust is treated there.

Introducing mercury-containing dust into the HTMR process will have a deleterious effect on the recycling operation. The precise fate of mercury entering the HTMR process is presently uncertain, however it is believed that a significant portion of the mercury which enters in the EAF dust would be re-volatilized and emitted to the atmosphere. Any mercury not emitted to the atmosphere would partition either to the zinc product or to the HTMR residual, potentially rendering both products commercially non-viable. The HTMR process utilizes high-efficiency baghouses to collect its product. Adding mercury controls utilizing carbon injection would not be feasible in the HTMR process because it would ensure the transfer of mercury into the product.

Installing controls at a steel mill which concentrate mercury into the baghouse dust will either result in simply re-emitting the mercury at the HTMR location, or require diverting the baghouse dust into a landfill. At the present time, approximately 60% of the EAF dust generated in the United States is recycled using the HTMR process, resulting in the

recovery of approximately 100,000 tons (as measured by total mass of zinc) of value-added zinc products. Total pollutant releases from these secondary manufacturing processes are much lower than releases from primary processes (including releases associated with mining operations) that use mined zinc ore as a feedstock. Diversion of EAF dust away from HTMR recycling processes due to entrainment of mercury would;

- result in greater total releases of TRI listed chemicals due to the increased reliance upon mined ores as feedstocks in the manufacture of zinc products
- cause accelerated depletion of natural resources
- result in a much higher proportion of EAF dust being land disposed
- be directly at odds with US EPA's waste management hierarchy which encourages recycling over disposal
- end the most successful hazardous waste recycling program to date
- potentially result in a greater reliance upon foreign sources of finished zinc products

Conversely, source reduction as a method of control minimizes the amount of mercury entering the EAF via the scrap feed, therefore no controls are required. This method reduces the amount of air emissions and does not incorporate mercury into the EAF dust to become a problem for the HTMR facility. This method is also the method that EPA has chosen for the entire EAF steel industry and, eventually, for other scrap consuming industry sectors, including integrated iron and steel and steel foundries. Once implemented nationally, the source reduction approach is expected to collect and recycle approximately 80 to 90 percent of available mercury switches.

6.0 SOURCE REDUCTION STRATEGY & IMPLEMENTATION

Claymont Steel has developed a phased plan of action by which we intend to significantly reduce the level of unwanted mercury coming into our facility in the scrap metal stream, and thereby reducing the resultant mercury emissions. Long term, the plan focuses heavily on getting mercury convenience switches out of end-of-life automobiles prior to recycling, since that is the predominate source of the mercury in the steel scrap. However, the plan also includes a more immediate component. Initially, the plan includes a combination of actions to provide a quick reduction in mercury levels. This strategy includes a reduction in the use of shredded scrap which typically contains auto scrap, procurement of auto-free shredded scrap to the extent commercially available, and procurement of auto-containing shred only from suppliers with fully implemented switch removal programs in place.

6.1 The National Vehicle Mercury Switch Recovery Program (NVMSRP)

The National Vehicle Mercury Switch Recovery Program is a cooperative effort among auto manufacturers, steelmakers, dismantlers, shredders, US EPA, States, representatives of the environmental community and trade associations of certain stakeholders. The parties, including Claymont Steel, agree to accept responsibilities for aspects of the design and implementation of the program. Mercury Switch removal will be increasingly successful nationwide when all

parties work to create a system that encourages Mercury Switch removal and recovery at rates sufficient to significantly reduce the amount of mercury that otherwise would be emitted to the environment.

In the United States, more than 95% of motor vehicles that reach the end of their useful life are dismantled or otherwise recycled, so that the useful parts can be reused, and steel, nonferrous metals and other raw materials can be recycled. During the recycling process, the vehicles are dismantled, crushed, and shredded, and vehicle scrap is separated into the ferrous, nonferrous, and auto shredder residue fractions. Ten to 12 million vehicles are annually shredded into scrap, which is used primarily to produce steel in electric arc furnaces (EAFs) such as at Claymont Steel, as well as in integrated steel mills and iron and steel foundries.

Prior to completion of the phase out at the end of model year 2002, several automakers installed mercury-containing switches in vehicles predominantly for convenience lighting in the hood and trunk and in anti-lock braking systems (ABS). Mercury switches from vehicles are a predominant source of mercury air emissions from EAFs, an amount that is decreasing over time as the older autos containing the switches are retired.

Pollution prevention in the form of mercury switch recovery from end of life vehicles is the most effective option to avoid these emissions. Not only will switch recovery reduce EAF air emissions, but also will reduce mercury releases in the form of air emissions and storm water runoff at the auto shredding facilities when the switches are broken open during the shredding process. Those persons handling whole, uncrushed end-of-life vehicles, usually dismantlers, scrap processing facilities and vehicle crushers, have the last opportunity to recover mercury switches before shredding. The NVMSRP expects to achieve an overall 80 to 90 percent rate of mercury switch recovery.

The national Program will be implemented at the State level, in consultation with appropriate State authorities. In December 2006 the Program was launched in Delaware, with a collaborative effort including DNREC, the End of Life Vehicle Solutions Corporation (ELVS), and Claymont Steel. Invitations to join the Program were sent by DNREC to all identified automobile salvage yards and dismantlers. As the dismantlers sign up for the Program with ELVS, they are sent a collection bucket for the removed switches, along with educational information on how to find and remove the switches. They will be paid a bounty of $1 per switch recovered, and ELVS will provide transportation and disposal services for the recovered switches. (See Appendix B – ELVS Delaware Page) Other States in the region where Claymont Steel procures scrap have also already launched the Program, including Pennsylvania and New Jersey. Because scrap is obtained from multiple States, a uniform, regional approach to source reduction is crucial for success.

Claymont Steel has entered into an agreement to help fund and participate in the NVMSRP as a significant effort to accomplish this goal. Claymont Steel has

already made the first of three annual payments to partially fund the Program. We will work as a Company and within our trade associations, the Steel Manufacturers Association (SMA) and the American Iron and Steel Institute (AISI) in order to effect mercury reductions. We will work cooperatively with DNREC and EPA to assess and monitor emission levels and assess the effectiveness of reduction measures taken.

6.2 Specific Source Reduction Action Items

Claymont Steel performed an emission retest in December 2006 to verify the initial test results and provide greater statistical certainty. The retest was performed by a different testing firm in an attempt to replicate the original results, and determine if there are any quality concerns associated with the initial test program. The retest was completed by using a similar scrap feed mix as in the first test, except that municipal waste incinerator steel scrap was no longer being used. A test report for the retest was not available in time for review and assessment for this document. However, preliminary data available indicates the mercury emission levels from the retest may be over 30% lower on a "per ton of steel produced" basis than the initial test results indicated. In addition, the second baseline test will be followed by an ongoing testing program discussed in section 8.1 in order to monitor the results of the mercury reduction plan.

Claymont Steel has stopped using steel scrap originating from municipal waste incinerators for recycling, in accordance with The Order. This commercial scrap commodity is the ferrous scrap material magnetically recovered from the residual of commercial waste combustion facilities. While we are unaware of any data specific to mercury contained in this type of scrap, there is a concern that there could be residual mercury due to the nature of materials potentially discarded into the waste stream that is combusted at these facilities (refer to section 9.1).

Claymont Steel shall report to the Department in a timely manner any operational changes that may affect the amount of mercury in the raw material scrap feed to the EAF.

Claymont Steel has reduced the amount of shredded scrap charged to the EAF as a percentage of feed, by substituting other scrap grades not containing auto scrap to the extent commercially available and feasible. Since shredded scrap normally contains auto scrap, this will provide an immediate reduction in mercury levels. This is viewed as a short term strategy, acting as a bridge until the switch removal program has been fully implemented. Ultimately, someone must recycle the end-of-life auto scrap.

Claymont Steel has arranged for several shredded scrap suppliers to shred only non-auto scrap for our purchase. We have audited these suppliers to ensure the auto-free scrap is actually segregated as requested, and have found the suppliers to have satisfactory procedures in place. This will also provide an immediate reduction in mercury emissions. The volume of auto-free shed commercially available in the region is limited, so we also purchase shredded scrap which

contains autos that have had the mercury switches removed as part of an audited and documented removal program. The special arrangement of procuring auto-free shred is considered a short term strategy, acting as a bridge until the switch removal program has been fully implemented. Again, ultimately the auto-scrap must be recycled, so avoidance of auto scrap is not a long term solution. Procuring auto scrap from a supplier who is removing the mercury switches is in fact the environmentally preferable long term solution.

Claymont Steel shall continue to work with all necessary parties to minimize the mercury in the raw material feed to the EAF. This includes continued participation in the NVMSRP to minimize the presence of mercury in auto shred, and includes maximizing alternative scrap feeds other than auto based scrap to the extent feasible, until the NVMSRP is fully functional and effective.

Claymont Steel will strongly encourage our suppliers and others in the supply chain to support and participate in the NVMSRP mercury switch collection efforts. We will utilize various methods for outreach to suppliers, such as letters (see Appendix A – Model Letter from Claymont Steel to Suppliers), contract language, policies for purchasing agents, and supplier audits.

Claymont Steel will notify relevant suppliers that we intend to utilize, to the maximum extent possible, scrap from vehicles which do not contain mercury switches or from which mercury switches have been removed and we will adapt our purchasing practices to that end.

Claymont Steel will use the End of Life Vehicle Solutions Corporation (ELVS) database or other appropriate means to demonstrate that suppliers are participating as anticipated in the mercury switch removal program and periodically re-affirm their commitment to provide only reduced-mercury auto shred.

Claymont Steel will conduct spot checks, site audits or other means of corroboration to ensure that suppliers are aware of the need and are implementing appropriate steps to minimize the presence of mercury in auto shred.

Claymont Steel will cooperate with ELVS in the development of education, training materials and outreach where appropriate.

Claymont Steel will cooperate with DNREC in the development of education, training materials and outreach for dismantlers within the State of Delaware where appropriate.

Claymont Steel will work with the Institute of Scrap Recycling Industries (ISRI) to assure that any scrap work practice standards or other programs that may be implemented in accordance with the mercury switch removal program take into account market and technological factors and do not create unreasonable or unworkable certification requirements for scrap processors.

7.0 DISCUSSION OF PROPOSED EMISSION LIMIT

The Order specifies that Claymont Steel's enhanced Mercury Pollution Prevention Plan shall propose a limit for future direct and indirect mercury emissions from the EAF process, and further contemplates that the limit should be consistent with a level of 35 mg /ton of steel produced. This emission rate is taken directly from a New Jersey regulation which is presently in litigation. Claymont Steel cannot support a limit derived from the flawed New Jersey standard. Furthermore, Claymont Steel is not in a position yet to propose any specific limit because there is not yet a sufficient technical basis from which to derive an achievable limit. The Order requires quarterly testing, which, although burdensome and expensive, will give ample opportunity to test mercury-reduced scrap by charging auto-free sourced scrap, mercury-reduced auto scrap with the mercury switches removed, and substituting other scrap grades not likely to contain significant mercury contamination. Only once we have the opportunity to complete several quarterly test events and analyze the data, will we be in a position to propose and technically justify any future limit. A numeric limit is not supportable at this time.

The New Jersey standard is not supportable. In an appeal of the New Jersey rule, Appellants The Steel Manufacturers Association (SMA) and Gerdau Ameristeel submitted comments objecting to the proposed regulations as legally, technically, and economically unjustified. In particular, the SMA commented that the proposed emission rate limit (35 mg/ton of steel produced) and mercury control standard (75 percent) are arbitrary, not based on any demonstrated or available technology, and unsupported by any data or analysis in the rulemaking record that is relevant to EAF steel mills. The NJ rule was constructed on an assumed EAF baseline emission rate of 140 mg/ton and an assumed ability to achieve an arbitrary 75% reduction. SMA and Gerdau submitted comments demonstrating that the actual baseline was considerably higher. The very limited data available from Claymont Steel's initial testing actually shows a baseline of 440 mg/ton. Also noteworthy is the fact that compliance with the New Jersey standard is not required until January 3, 2010 which is 5 years from rule proposal. The underlying premise with the 5 year compliance timeframe is that it allows facilities to pursue source reduction and gauge its success before addressing air pollution control retrofits. The New Jersey steel mills are not on record as currently meeting, or expecting to meet the 35 mg/ton standard. The New Jersey rule also allows a mill to demonstrate reductions of 75% as an alternative to meeting the 35 mg/ton standard. Stipulating a limitation of 35 mg/ton does not appear reasonable or achievable based on the limited data available. Claymont Steel must be allowed to proceed with the required testing program to collect sufficient data upon which to base a technically justifiable and achievable limit.

8.0 MONITORING & REPORTING

The Order requires a program of both direct emission monitoring and routine reporting of reduction progress.

8.1 Direct Emission Testing

Mercury emissions will be directly measured by periodic testing of the EAF mercury emissions. Claymont Steel will initially perform quarterly mercury testing for as long as the EAF is operated, or until a change in the testing program is agreed to in writing by DNREC. Quarterly tests shall be completed by March 31st, June 30th, September 30th, and December 31st, with results submitted to DNREC within 60 days of test completion.

8.2 CEMS Evaluation

An investigation will be conducted on the feasibility of installing a mercury continuous emission monitoring system (CEMS). Based on our preliminary conversations with emission testing and monitoring professionals, we believe that the reliability of these systems is suspect, and installation on a positive pressure baghouse system is problematic. However, due diligence will be completed during 2007 to review the feasibility of installing a system.

8.3 Switch Removal Tracking

Claymont Steel will work with our scrap suppliers to identify the auto dismantlers which provide end-of-life autos for shredding. We will monitor the participation of those dismantlers in the NVMSRP and the mass of mercury removed by them. The amount of mercury removed from the dismantled autos prior to shredding will be recorded under the NVMSRP and be made available on the ELVS website for each individual participant (Appendix C). It must be recognized that there will be a time delay associated with this reporting, as the switches will not be counted until the dismantlers accumulate enough switches to send them to the designated recovery facility. This time lag can be significant for low volume dismantlers, possibly approaching a year.

8.4 Semi-Annual Reporting

Claymont Steel shall submit to DNREC semi-annual reports due June 30th and December 31st each year detailing progress made in implementing the mercury reduction plan, in accordance with The Order.

9.0 MERCURY SOURCE INVENTORY

The Order requires Claymont Steel to provide a detailed inventory of all mercury sources contributing to mercury emissions at the facility, for the purpose of developing programs to remove mercury sources prior to delivery to Claymont Steel.

9.1 Potential Mercury Sources in Scrap Steel

There is no definitive information that we are aware of that would provide a breakdown of mercury sources found in scrap steel. It is believed that the automobile mercury switches constitute the great majority of mercury contained in scrap, or more specifically shredded scrap. There are other commercial items which contain mercury that could possibly contaminate the scrap stream if improperly disposed with the scrap. The following is a brief description of some

common items that could conceivably be introduced improperly into the scrap stream, but we are not aware of any information indicating to what extent this actually occurs. Mercury contamination of scrap feed is essentially a failure of some party to remove or segregate the mercury from the scrap metal prior to discarding the scrap for recycle. This occurs several steps in the chain of commerce prior to an EAF recycler such as Claymont Steel, which makes it difficult or impossible to detect and control.

Thermostats: Mercury-containing thermostats use mercury tilt switches containing on average 3 grams of mercury. Heating, Ventilation, and Air Conditioning (HVAC) businesses and building and electrical contractors may be dealing with mercury thermostats during routine replacement projects, renovations, and building or demolition projects.

Manometers - Manometers can contain up to 454 g of liquid mercury when they are installed. Hospitals, health organizations, clinics, schools, automotive businesses, dairies, barns, and even homes may contain a manometer.

Button cell batteries - Tiny circular button cell batteries containing mercury are commonly used in small devices such as watches, calculators, hearing aids, digital thermometers, cameras and in toys and games.

Switches other than automobile applications - Mercury tilt switches are small tubes with electrical contacts at one end. As the tube tilts, the mercury collects at the low end and a conductive pathway is formed which completes the electrical circuit. When the switch is tilted back, the circuit is broken. Reed switches and float switches are other examples of mercury-containing switches. Small electrical switches contain about 3.5g of mercury while larger industrial switches may contain up to 3,600 g of mercury. Mercury light switches were manufactured from the late 1960s to 1991 and used in new construction and renovations. These devices look like a typical wall switches, but they do not make the audible "click" sound when activated. They operate on the principle of liquid mercury in a metal-encased glass button that completes the electrical circuit when the switch is lifted up, submerging an electrical contact point. They are often referred to as "silent switches". They contain about 2 grams of mercury. There can also be mercury-containing switches in large, commercial and industrial heating or cooling units.

Flame Sensors - Gas ranges found in many kitchens may use a mercury-based pilot light ignition. The flame sensor is a required safety device for these appliances. Their purpose is to prevent natural gas from leaking into the home and creating a hazardous situation. These flame sensors and switches contain 1 to 2 grams of mercury per unit.

For a more detailed inventory of mercury containing commercial items, visit the website link: http://www.newmoa.org/prevention/mercury/imerc/notification/

Compared to the end-of-life automobile mercury switches, it is not believed that any of these other commercial items constitute a large contribution to the mercury load in the scrap feed. As stated in Section 6.2 and required by The Order, Claymont Steel is no longer recycling scrap steel from municipal waste combustors due to the concern that some of these items if in the waste stream, may possibly result in the contamination of that scrap.

9.2 Mercury in Carbon Charge

There is also a small amount of mercury contained as a naturally occurring contaminant in the anthracite carbon charged to the electric arc furnace as part of the steelmaking process. The EPA guidance document for TRI reporting of mercury lists average mercury content for anthracite coal as 0.16 mg/Kg. At this average concentration, the anthracite charge could contribute up to 8 lbs /yr of mercury emissions. Claymont Steel has obtained mercury analyses from our carbon suppliers for our source material for comparison to the EPA default value. All samples have shown mercury levels below the EPA reported average value.

APPENDIX A – MODEL LETTER FROM CLAYMONT STEEL TO SUPPLIERS

Dear [Scrap Supplier]:

This letter is to inform you that Claymont Steel is participating in the National Vehicle Mercury Switch Recovery Program ("NVMSRP"). The NVMSRP is a national partnership of steel producers, scrap recyclers, vehicle manufacturers, State agencies, environmental organizations, and the U.S. Environmental Protection Agency ("EPA"). The goal of the program is to reduce the presence of mercury in the scrap supply by facilitating the removal of mercury-containing switches from end-of-life vehicles before they are flattened, shredded, and melted to make new steel.

We believe that the NVMSRP is the most effective means of minimizing potential mercury releases to the environment and we strongly encourage you to participate in this important program. As part of our participation to the program, we have committed to requiring our scrap suppliers to verify that they are taking steps to minimize the presence of mercury-containing switches in vehicle scrap by demonstrating either their participation in the program or that they have implemented a similar mercury minimization program.

Participation in the NVMSRP is open to all parties in the scrap supply chain, with the ultimate goal of achieving the removal of mercury-containing switches before end-of-life vehicles are crushed and shredded. If your company or facility receives vehicle scrap that already is crushed and/or shredded, your participation in the program would require you, in turn, to urge participation by your suppliers.

The NVMSRP is operated by the End of Life Vehicles Solutions Corporation ("ELVS"). At no cost, ELVS can supply you (or your supplier) with: (1) a collection bucket; (2) a list of vehicles that potentially contain mercury switches; (3) a removal brochure; (4) an instructional DVD; and, (5) detailed shipping instructions for the switches. ELVS also will cover all of the shipping and disposal costs for the switches collected by your company. If you would like to participate and receive these materials at no cost, you should contact ELVS at www.elvsolutions.org.

Regardless of your participation in the NVMSRP, Claymont Steel will seek documentation of your (or your supplier's) efforts to remove mercury switches from vehicles before the scrap is sent to our facility. This may entail a demonstration of your participation in NVMSRP (or establishment of your own mercury minimization program), as well as a plan to implement the program requirements, including communications to upstream scrap suppliers. Additionally, so that we may ensure that our incoming scrap supply is as free as practicable from mercury-containing switches, we may contact you in the future to arrange for a visit to verify your efforts to ensure that mercury switches have been removed from the vehicle scrap that is purchased by our facility.

Claymont Steel appreciates your cooperation with these policies to prevent mercury-containing switches from entering our scrap feedstock and we encourage you to participate in this voluntary program. Claymont Steel also recognizes that, oftentimes, the removal of mercury switches from vehicles before crushing or shredding is most appropriately handled by your upstream suppliers. As such, please consider passing along this information to your suppliers and encouraging them to participate as well.

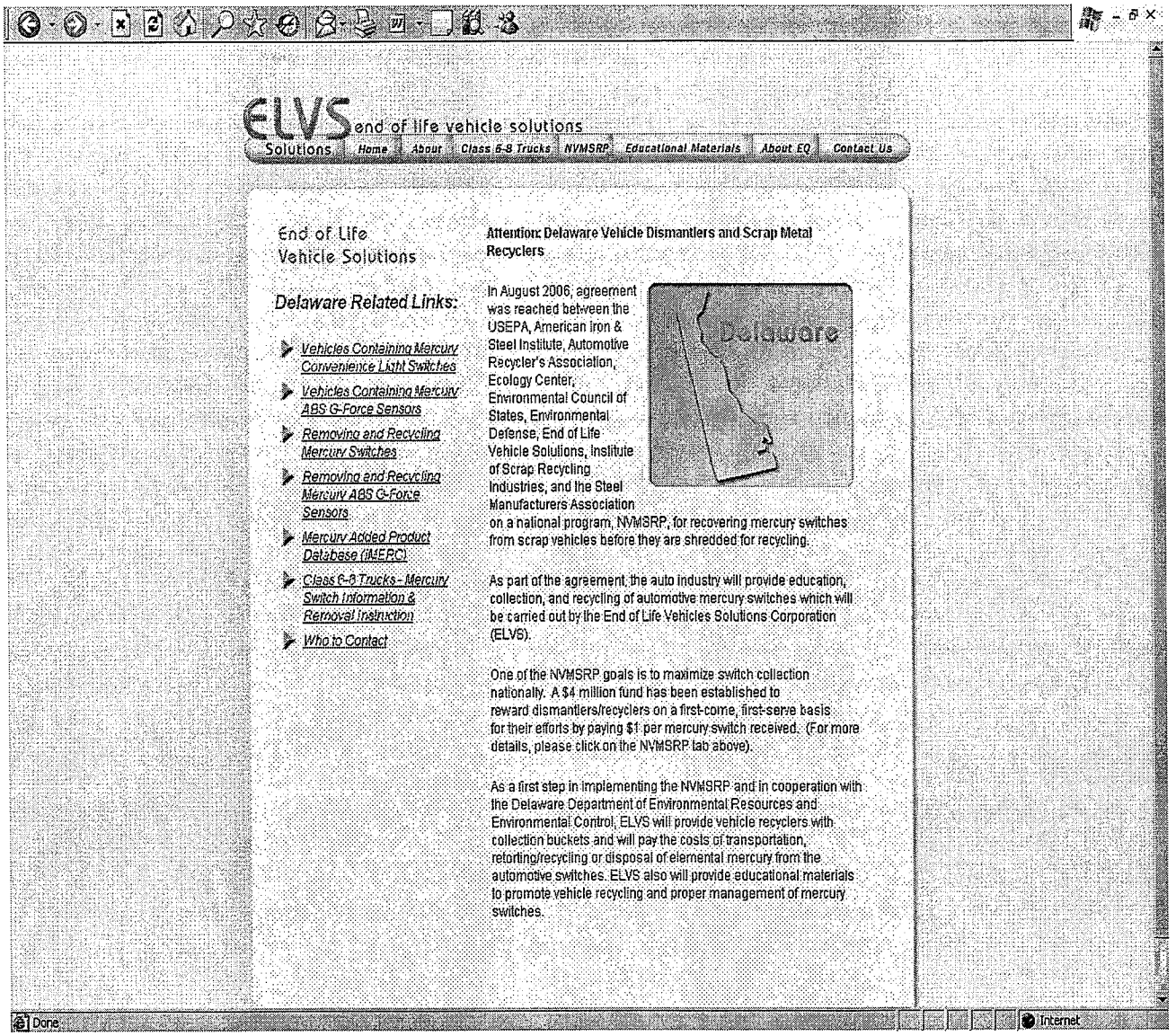
If you or any of your suppliers have any questions, please feel free to contact me at (302) 792-5444. Thank you for your help in this matter.

Sincerely,

Dana A. LeSage, P.E.
Manager; Energy & Environmental Engineering

APPENDIX B – ELVS DELAWARE PAGE

http://elvsolutions.org/delaware.htm



APPENDIX C – DELAWARE RECYCLERS PARTICIPATING IN NVMSRP PAGE

http://www.eqonline.com/services/ELVS-Mercury-Switch-Recovery-Program/state-report-all.asp?go=go&state=DE&name=all