TOWNSHIP OF FALLS
PLANNING COMMISSION MEETING
FEBRUARY 25, 2020

Meeting commenced: 7:00 p.m. **Meeting adjourned:** 7:45 p.m.

Members present: Brian Binney, Edward Crohe, Thomas Hughes, Mary Leszczuk

Members absent: John Haney

Also Present: Michael Meginnis, Esquire (Begley, Carlin), Eric Clase, P.E. (Gilmore & Associates), Dan Shaw (MM Metals founder), and Jim Saville (Technical Director MM Metals) representing MM Metals

For the Township: Matthew Takita, AIA, MCP, Zoning Officer, CCEO and Ass't Township Manager; Joseph Jones, Township Engineer and Colleen Kane, Associate Engineer (Jones Engineering Associates) and Diane Beri, Recording Secretary

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Item #1: MM Metals, Middle Drive, Fairless Hills, PA, TMP #13-051-001; Zoned: MPM. Owner: US Steel Corporation, Creation of a 3.738 acre lease area for the construction of a 15,120 sq. ft. building (ferrochrome), a 10,000 sq. ft. bldg. (aluminum), and a 2,844 sq. ft. office/laboratory

Michael Meginnis, Esquire, presents the application and states that the plan is to create a 3.74 acre lease area with three buildings on it. Bldg. 1 is a 2,844 sq. ft. office/laboratory, another building is a 15,120 sq. ft. building labeled ferrochrome and the third is a 10,000 sq. ft. bldg. labeled aluminum. The location would be used to manufacture ferrochrome alloy. Broadly speaking, MM Metals melts and recreates metals. They deal with metal processing and manufacturing. There is no contaminated materials that are being processed on site. They are not processing radioactive material. We are storing on site aluminum scrap, promite ore, ferrochrome, lime, sand and slag. We are estimating approximately 60 to 70 employees would work at the location. This would be a 24/7 operation. There is no overnight truck storage. The ferrochrome which would be used here deals with the production of high temperature alloys for jet engines and rocket exhausts. Its use in aircraft and motor vehicle parts has led to the Department of Defense (DOD) to classify low carbon ferrochrome as a strategic material. The DOD keeps about 30,000 tons in a stockpile. This facility would manufacture about 18,000 tons annually and would be the only domestic producer of this material.

We have been in communications with the Township professionals and will continue to work with them as we move forward in the process. We have received the review letters, and it should be noted that we had originally requested six waivers, but we are now requesting only four waivers. All other items in Mr. Jones' review letter as well as the review letters from Remington & Vernick and the Fire Marshal are will comply items.

The four waivers specifically are from Sections 191-31(A) (to not provide a cartway width of 36 ft. with curbing along property frontage); 191-62(B) (pertaining to curbing and widening along streets that front a Subdivision or Land development); 191-48(A) (providing street trees along all sides of all streets); and 191-52.1 (partial waiver with respect to site capacity calculations for natural resources for the entire parcel; will comply for site calculations for lease area only).

Mr. Jones asks if they are requesting a partial waiver request for 191-78(C)(2) for surrounding typography.

Eric Clase, P.E. states yes our plans show enough information for the Township Engineer's review, and we will be providing the surrounding tax parcel numbers and names as requested.

Chairman Binney requests a brief overview of the process that will be done at this location.

Dan Shaw (founder of MM Metals) states this is a process that Jim Saville and I have a U.S. Patent for. It's a technology that enables in a simple, one-step process to produce a very high-quality ferrochrome. To make the product there are simply four ingredients: mineral oil, lime, sand and aluminum (which we make onsite). The mineral oil chromite comes from a very high-grade surface deposits of chromite from different parts of the world. We mix that with a lime, sand and the aluminum. We take scrap aluminum brought into the facility, melt it and cast it into very tiny small miniature ball bearing type sizes which are then mixed into the feed which goes into the furnace. The furnace itself and everything that goes into the furnace is under nitrogen. It's there because the whole point of the process is to capture the oxygen that is in the ore and react it with the aluminum that we mix with the material so we form alumino which is a common mineral found all over the world. We are oxidizing the alumino that we make onsite, and we are reducing the chrome which is in oxide form and the minerals that we have to produce the chrome. By doing so in the nitrogen atmosphere, we are not using any atmospheric oxygen and any oxygen from any other source so that it simply converts one oxide to a metal and another metal to an oxide.

The process is very quiet in a completely sealed furnace and most of the energy comes from the chemical reaction between the two components. The purpose of the furnace and the electricity that we put into the furnace is part of our development which is re-using the energy to keep the slag layer which contains all the things that are not metal. We are keeping it a consistent temperature because we want all the metals to drain into the bath to produce an economically viable yield of low-cut ferrochrome and the slag which is free from metallics. We will sell or give the slag to various industries like the cement industries. There are no residues from this process. We are using very clean scraps.

This is a very simple and quiet process which doesn't need much land. There are approximately 8 people on the ferrochrome production site, approximately 6 on the aluminum production site, and we are running 24/7. Aside from the 60-70 people, we are using the Kinder Morgan port for handling the material and a contractor bringing it to our site.

Chairman Binney asks if the process will involve any chemicals or hazardous materials.

Mr. Shaw says no, the four materials are mineral oil, lime, sand and aluminum. US Steel has radiation detectors coming into the site.

Chairman Binney says the ore is coming in bulk and you will be getting scrap aluminum. Will that be stored outside?

Mr. Shaw says no, it will all be inside. We must have all the material dry because we don't want water in the furnace.

Member Leszczuk asks how long it takes to ship out product. Is it a daily thing?

Mr. Shaw says roughly speaking six times a day we tap the furnace. It's very automated. The material is tapped into a big ladle around 8 tons at a time, the cast material is very hot. The ladle is poured into a castor, the castor has about 120 molds, 3 ft. by 1 ft. in width and length and an inch thick, about 75 ft long. The molds are moving at about 6 or 7 ft. per minute and they are being sprayed with water. They cool in about 6 or 7 minutes. When it comes to the end of the travel, the mold tips, the slag falls onto a steel beam underneath, breaks and it

goes through a crusher into bolt bags ready to deliver to the customers. In the course of a single day, we will make 6 batches of 8 tons ready to go to the market the same day.

Member Leszczuk asks if trucks would come daily for the product.

Mr. Shaw says yes, there is no benefit to storing it on site. The product is stockpiled in the Pittsburg area from all over the world. They have to be ready to deliver in 25 ton batches on 24 hours' notice.

Member Hughes asks for some of the byproducts of the process.

Mr. Shaw states that the byproducts from producing ferrochrome is just the slag. He then describes in detail the process and byproducts.

Member Hughes asks if there are efforts made to set up similar facilities in Canada.

Mr. Shaw says no. What Fairless Hills offers us is the port, power, proximity to the customer, and United States manufacturing. Also, immediately adjacent to our plot is an Air Gas facility which produces the nitrogen.

Chairman Binney asks what happens to the slag – does it go to the landfill?

Mr. Shaw says no, it has many different applications. You must be producing the product before you can apply for those applications. Initially, all the local cement producers will want to use it because of the high quality of the aluminum.

Member Crohe asks about the possibility of expansion.

Mr. Shaw says there are two parts to this. The first is the technology – it took us 10 years to develop and it's patented in the United States. We filed this patent in July 2019 and it was granted in December 2019. It's a cheap way of making alloys in places like the United States. Yes, we'd like to expand but we must qualify the product in the market, file the applications, etc.

Member Leszczuk asks if they will be hiring new people or bringing currently existing workers.

Atty. Meginnis states that MM Metals is a newly formed company, there is a team in place, but there will also be local residents employed.

Member Hughes asks if there is any chance for any type of negative exposure to potential health hazards to the general public.

Jim Saville (Technical Director for MM Metals) states that because we use a completely sealed furnace with a nitrogen atmosphere, the release of chromium 6 doesn't happen because it is chemically impossible.

Discussion occurs on technical aspects of the process and why their process would not release any hazardous chemicals and catastrophic failure procedures.

Member Hughes asks if they went to the Pa. Department of Environmental Protection (PaDEP) to receive an air permit for this facility.

Mr. Shaw states that yes they did and it was published and approved in the Pa. Bulletin on January 28, 2020.

Public Comment

John Bentz, Falls resident and member of the Falls Township Environmental Advisory Council, explains that the EAC looked at the project and didn't really understand what the applicant's process was going to be. He wanted to know if they could provide a patent number so we could verify that they do have a patent.

Mr. Shaw states that the patent was granted on December 17, 2019. It is public record. The patent describes the use of the four ingredients as well as the process of how the plasma furnace works, and how these materials are processed. It is important to note that chrome oxide exists in different phases and for chrome 6 to form, you must have very specific environmental conditions. Our process does not allow for these conditions to happen.

No further public comment.

Member Leszczuk makes a motion to recommend approval for Preliminary and Final Land Development application for MM Metals USA, LLC located at Middle Drive, Fairless Hills, PA 19030, TMP #13-051-001, based on Jones Engineering Associates review letter dated February 20, 2020, with waivers requested for Section 191-31(A), 191-44(D), 191-48(A), 191-62(B) and partial waivers of 191-52.1 and 191-78(C)(2), the Remington Vernick's letter dated February 5, 2020, and the Fire Marshal letter dated February 21, 2020.

No second – motion fails.

Member Leszczuk makes a motion to recommend approval for Preliminary Land Development application for MM Metals USA, LLC located at Middle Drive, Fairless Hills, PA 19030, TMP #13-051-001, based on Jones Engineering Associates review letter dated February 20, 2020, with waivers requested for Section 191-31(A), 191-44(D), 191-48(A), 191-62(B) and partial waivers of 191-52.1 and 191-78(C)(2), the Remington Vernick's letter dated February 5, 2020, and the Fire Marshal letter dated February 21, 2020.

Member Crohe seconds the motion.

All in favor 3-1, Hughes dissenting. APPROVED FOR PRELIMINARY LAND DEVELOPMENT

Item #2 Approval of Minutes

Motion to approve minutes from January 28, 2020.

All in favor 4-0.

Meeting adjourned 7:45 p.m.