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March 1, 2007

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RE: Transcribed history (Kaiser) "Tract X" and Panamax Dock,
Baton Rouge, Louisiana

Dear Mr. Lewis,

My name is Camp Matens. Friday, February 23, 2007. 9:47AM. I am recording this as a request by Garry Lewis to provide some historical background and factual information with regard to the former Kaiser Aluminum plant in Baton Rouge, Louisiana at the intersection of the Mississippi River and US Hwy 190.

Further I am editing same on Thursday March 1, 2007

The Kaiser Aluminum & Chemical Corp. (KACC) plant was built by the US Government as part of the 2nd World War effort to provide aluminum primarily because of the anticipated need of aircraft. There was a government organization, I believe, known as Defense Corporation of America, that contracted with various existing industries to build additional plants with the technology they had in-house. This particular plant was built by the Aluminum Company of America (known as ALCOA) and was modeled very closely after the existing ALCOA alumina plant in Mobile, Alabama. As a matter of fact, some of the drawings were the Mobile plant drawings, just modifying the title block to read Baton Rouge. Construction was started early in the war and perhaps even a few months before and the plant did make product for the war effort.

The U.S. Government's decision to locate the plant in Baton Rouge was likely made because there were a number of war sensitive chemical plants, either existing or being built in the industrial corridor that is very near the present plant. The Exxon refinery, which was built in 1916, was a very important part of that effort, a Solvay process that made caustic soda, which is one of the raw

materials that the government needed for the alumina plant, as well as the DuPont Corporation's tetraethyllead plant.

The government divested itself of their ownership in these types of facilities at the end of the war. The Truman administration, was concerned that if ALCOA took ownership of all the aluminum related plants it would further strengthen the monopoly that they were forming in the Aluminum industry. Accordingly, the government caused these plants to be divided between Kaiser, which was then in the ship building and engineering business and Reynolds Metals Corp. which was then in other types of businesses. Kaiser obtained the Baton Rouge plant as well as some others and Reynolds acquired a like plant in Corpus Christi Texas as well as other aluminum related facilities.

The process of refining Aluminum from the raw material is known as the Bayer process. Bayer is a European chemical company. That process requires the acquisition of a raw material known as bauxite. Bauxite is the ore that contains Aluminum in the oxide form (Al_2O_3 known as Aluminum oxide). That ore is the most common metallic element in the world, primarily centered about a band 25 or so degrees North and South latitude of the Equator. In geological time extreme rainfalls leached the aluminum oxides out of the soil concentrating the Al_2O_3 . The original raw material provided to the plant was from Bauxite Arkansas. That particular Bauxite is not a very good quality, but it is possible to process it, and of course, during the war, the government wanted a secure source of raw material within the present 48 states. There are far better quality Bauxites elsewhere and in the early 50s, Kaiser converted the process in order for it to be able to process Bauxite from Jamaica, which is of a very high quality. That particular process improvement including an expansion of the production capability.

The plant location was immediately South of the then, relatively new, Hwy 190 bridge, that bridges the Mississippi River. Prior to the bridge being built, the only way to cross the river was a car ferry from the town of Port Allen to what is now downtown Baton Rouge and additionally there was a railroad ferry from a location between Port Allen and Hwy 190 and somewhere on the West bank and somewhere on the East bank somewhere near the present Exxon refinery where railroad cars were shuttled onto barges, ferried across the river, then taken off the barges. Of course the bridge included a railroad track, so the location all of a sudden had not only decent highway access, decent rail access and although it wasn't particularly important at the time, there was an airport being built for the training of wartime pilots, the present day Baton Rouge airport. accordingly, this infrastructure caused the present site to be a desirable location. The bridge at Baton Rouge was designed and construction begun during the administration of the famous Huey P. Long. He caused that bridge to built at an clearance that precluded the ability of ocean going vessels to go upstream or north of the bridge; thereby denying the State of Mississippi the opportunity for a deep water port on the Mississippi River. The dock that's at the Baton Rouge site is as far upstream as an Ocean going vessel can safely travel. There are times at very

low river levels that you can get under the bridge, but the Corps doesn't maintain the channel above that, and those times are relatively few. The dock was improved in about 1969 in such a manner that it allows the berthing of what is termed a Panamax ship, a Panamax ship is the maximum size vessel that can transverse the Panama canal. That's important because shipping costs are sensitive to the vessel size, so when bulk cargo is being shipped there is interest in Panamax vessels not just because they may have to go thru the Panama Canal but because there are a lot of those vessels in service and easily chartered.

The process of transforming the Bauxite, of extraction the aluminum oxide out of the bauxite, is relatively simple, it involves digging the Bauxite out of the ground, the particular Bauxite came from the North coast of Jamaica, shipped by ocean going vessel to Baton Rouge. The Bauxite is stored onsite until it is needed, the dry impurities, limestone modules and the like, are stripped out mechanically, and then this now red dirt which essentially Georgia red clay, is introduced to hot caustic soda, sodium hydroxide, that dissolves the Al_2O_3 that is in the ore, at that point and time, the organics (the remaining dirt), is again stripped out leaving a super saturated solution of Al_2O_3 and Caustic soda. That solution is precipitated much the same as filling up a glass of warm water with sugar until it can't contain any sugar anymore, lettering it cool down, throwing some sugar crystals in and watching all the sugar drop out to the bottom of the glass. It is exactly the same. The Al_2O_3 precipitated is then heated in rotary kilns to drive off the chemically associated water. Al_2O_3 comes in two forms mono-hydrate $Al_2O_3 \cdot H_2O$ and tri-hydrate $Al_2O_3 \cdot 3H_2O$. The calcining process drives those associated waters off leaving you with pure Al_2O_3 . That material, interestingly enough, among other destinations was shipped to the West coast of Africa where KACC had a very large reduction plant because of the availability of large blocks of power. The oxygen is reduced in the presence of a consumable carbon anode leaving primary metal - AL. That material was shipped back to the United States and further formed mechanically into sheet, plate, and structural as well as other desired shapes of aluminum.

The decision to close the Baton Rouge plant was made in the very early 1980s. The actual closure was in about 1983 or 1984, a sad event in the Baton Rouge and it's economic community. There were almost 700 jobs, good jobs, that were lost as a result.

Kaiser Aluminum & Chemical Corp. commissioned a phase 1 environmental study in 1994 (Emcon) Which was followed by a 2000 Phase 1 and Phase 2 study by Formosa Plastics Corp. and subsequently a Phase 2 study by CEMUS, LLC (Ecosciences). There were not any contaminants of concern identified as a result of any of these studies. The fact that this site has been found to not have any environmental regulatory issues is because the raw material, bauxite, is an innocuous material, essentially red dirt from the island of Jamaica. Additionally,

the other materials used in the process of producing alumina do not contain any constituents that might result in any contamination of the soil or groundwater at the site.

The waste material from the site, which is not, by definition, a hazardous material was transported from the site and is stored elsewhere. There has not been any subsequent use of this site.

I have had close contact with the LADEQ with regards to this site and have openly shared the results of all investigations as well as any testing performed. These contacts included levels of LADEQ staff up to and including Mr. Bruce Hammitt who was at that time the Undersecretary and Chief for Enforcement for the LADEQ.


I am professionally acquainted with Mr. Pete Lee who completed the 2007 study and have a high regard for his competence.

I am a Baton Rouge native and graduated from Catholic High in 1960 and from LSU in 1965. Both my wife and I are professionals in the industrial technical and environmental field and love Louisiana, it's people and culture.

We are both involved in the local and state community through various artistic and charity organizations.

Like neighbors, Formosa and Exxon, this particular 60-70 acre ocean vessel site is one of only 2 or 3 high, good East Bank sites. "By chance" it has the ultimate in distribution resources being the River, major rail, major road, major pipeline crossings and close to the airport. These characteristics can not be easily duplicated on the Mississippi and I am pleased that CEMUS is involved in bringing this site back to needed economic use. I believe needed practical uses include petroleum, natural gas, aggregates, cement, raw materials, manufactured products and possibly even consumer goods.... shipping, distribution and storage.

Sincerely,

A handwritten signature in dark ink, appearing to read "S. Matens", with a horizontal line drawn through the end of the signature.

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