Import of CMC indicates an increase every year, it is planned to set up factories to fulfill the national needs of the CMC. CMC has a primary function as a thickener, stabilizer, emulsion and binding materials. Location plan of the establishment of the factory in Semarang, because of the availability of selected raw materials, ease of transportation and water source.

CMC from water hyacinth is made with the soda delignification process through 4 stages. The first stage to minimize the size and eliminate impurities. The second stage is to remove the lignin with aqueous NaOH 12% at temperature of 165-170 C and a pressure of 6.5 atm. third stage to brighten the color of the pulp the pulp with chlorine dioxide-extraction alkali-chlorine dioxide, respectively as delignification dissolving the lignin degradation and increase the brightness on the pulp up to 90%. The last stage is Monochloroacetic acid reacting with pulp and then dry out to form CMC powder.

The CMC factory worked continuously and operates over 330 days/year with production capacity 2,500 tons/year. Water hyacinth is needed 104,000 kg/day with supporting raw materials NaOH, ClO₂, methanol, acetic acid and Monochloroacetic acid. Needs of utility is the water sanitation, boiler feed water, process water and water make up each amounting to 7.17; 294,646; 1099,352 and 58,929 m³/hour. Wastes from this industry is black liquor, water hyacinth leaching waste and impurities.

Key word: CMC, Water Hyacinth, Soda, Delignification