



“President Joe Biden is mobilizing the talent, grit, and innovation of the American people and the full power of the federal government to bolster American industrial and technological strength and ensure the future is ‘made in all of America by all of America’s workers.’ American workers can out-compete anyone, but their government needs to fight for them.”

Re: Section 6(b) of Executive Order 13944, *Combating Public Health Emergencies and Strengthening National Security by Ensuring Essential Medicines, Medical Countermeasures, and Critical Inputs Are Made in the United States*

Problem Statement: A) **The United States has an urgent and significant requirement for domestic production of polymeric raw material for manufacturing Nitrile Examination and Sterile Surgeon’s Gloves in the USA.** *The Industrial Base for Acrylonitrile Butadiene Rubber (NBR) was offshored when the vast majority of Nitrile glove manufacturing shifted to Asia. Renco’s team seeks to re-build the medical / public health industrial base by standing-up and re-shoring large scale Polymerization facilities to secure our nation’s supply for American manufactured glove factories and the U.S. Military.*

B) **The United States faces a critical shortage in the domestic production of nitrile medical gloves.** *Current manufacturing capacity is limited to only one domestically owned company, Renco/American Performance Polymers (APP). Other foreign owned entities and a few start-ups are applying for 510K pre-market approvals. Sustaining a domestic glove production of 25B gloves/year enables the country’s private sector and government public health system to be self-sufficient, a National Healthcare Industrial Plan must include the construction of at least 12 nitrile medical glove manufacturing factories strategically located across the country.*

Proposed Solution: A) **Renco & APP have assembled a team of cutting-edge chemists, engineers, industrialists, and national security experts to implement state-of-the-art techniques to manufacture sufficient NBR to supply to the needed domestic manufacturers of nitrile medical gloves.** *With the proper funding partner, Renco’s solution provides sufficient processing to produce raw materials to respond to the Covid 19 pandemic demand and to re-fill the national stockpile for nitrile examination gloves. This plan will enable a 100% Made in USA solution to comply with Buy America and Berry Compliant contracting. With ‘fast-track’ funding and implementation, the company anticipates full production within 18-224 months from the date of funding. Demand for imported nitrile gloves has exploded exponentially since the Covid pandemic began. Additional global NBR feedstocks are not anticipated on-line until late 2023/24. Renco’s team has locations selected to help solve this national and global shortage and raw material supply crisis. Co-locating facilities near the refineries will allow optimum transport of raw materials to Renco’s factories for polymerization and finished NBR products. This design will mitigate costs by eliminating the need for expensive stabilizers for transport and storage. Renco’s state-of-the-art polymerization facility has been proven to produce medical grade nitrile and does not rely on antiquated and un-safe polymerization techniques. Renco’s team invented many of the modern methods of polymerization of NBR for glove manufacturing. Co-locating the facility with Butadiene manufacturing, will allow the Renco to manufacture NBR at lower costs while accelerating its ability to help re-shore and re-build the U.S. Military/Medical Industrial Base for NBR production.*

B) **RENCO and its vertical integration team are ready now to construct NBR polymerization reactors to help domestically produce over 15 billion gloves per year within the next 18-24 months.** *This production will supply USG and U.S. private sector glove manufacturers in Phase One and custom coatings for battery, paper and semi-conductor industries in Phase Two.*



Approach: With the proper financial resources, Renco's team is prepared to deliver a state-of-the-art, cost-competitive, world-class, full-scale NBR Polymerization Plant. With proper pandemic emergency support, Renco's team can begin supplying its own dielines with domestically produced NBR within 18-24 months. By month 24 Renco can produce enough reactor capacity to process up to 20 billion gloves/year.

The factory will be strategically co-located for optimum productivity, security, distribution and safety. It will also be linked via rail to other high-speed glove manufacturing facilities. Plans are complete and include engineering designs, sketches, and costs structures. Renco offers a comprehensive plan based on decades of experience in the formulation, production, distribution, and transportation of an essential raw material to produce urgently needed nitrile gloves for the country's pandemic and war stopper response requirements.

Team: Renco has been in the medical and industrial glove business for 60 years. The Renco team is comprised of our subsidiary, APP, which has a proven track record with NBR formulations and commercialization of Tillotson Healthcare's original nitrile exam glove patent from 1991. The teams have over 150 years of combined NBR and Nitrile Glove Polymer development experience with executives and chemists from Synthomer and Dow/Reichhold Chemical, NitriFlex, West River Chemical, Tillotson Healthcare, and Renco.

Deliverables: A) The production of a Class 1 safety NBR Pilot Polymerization facility will be developed immediately. Expected capacity to exceed ~150,000 tons of NBR per year, which will be directly utilized by new glove production facilities in the USA. First formulas will be deliverable from its pilot plant by December of 2022 if the plant is given the green light and funding. Full production within 18-24 months if needed with expedited USG support. Renco has teamed to co-locate its xNBR production facility near a butadiene production factory.

B) The production of a Class 1, Div. 2 xNBR manufacturing plant will produce sufficient raw material for 10-15B gloves/year. It could expand to a top-three global producer within 36 months.

Cost: The estimated cost for the NBR Polymerization Pilot Plant is \$250 million

Renco anticipates additional factories to augment the U.S. Medical Industrial Base for NBR. The plant will yield competitively priced NBR for glove production and other military needs at competitive prices for the coming 10-30 years within 24 months. Funding is reflective of fast-track approach to 'standing-up' production facilities and includes real estate to keep the project competitive for the long-term. Renco's joint venture/teaming agreements will ensure cost control, safety and efficiency.

Contracting Strategy: Renco's plan will require rapid buildout resources. Government priority buying and contracting to support this effort are helpful and needed. Long-term Government Contracts awarded to the DPA supported companies will ensure a rapid transition to self-sustaining, globally competitive entities. Advantages in automation, safety, energy costs, market pull and innovation will enable this project to succeed for the next 10-50 years in the global market. This undertaking will be 100% self-sustaining within 24-36 months of funding and Renco Corporation has capacity requirements for up to 50% of output.

Thank you kindly for the consideration. Time is of the essence as glove manufacturing expertise is at a premium and many of the 'experts' are retired or retiring quickly. Renco has attracted and contracted the cream of the crop for this specific mission to enable us to re-shore the expertise to the land where it was innovated, patented, and optimized. Since these industries were 'off-shored' to low labor cost and subsidized countries and companies, the USA has been at high-risk of shortages of the most critical military (gaskets, coatings) and PPE: glove and hand protective products. Stand with Renco to continue its 60th year of manufacturing medical, research and safety products in the USA. We can be reached at 800.257.8284 or 978.884.8494 (Rich Renehan, CEO).