

ANALYTICAL, RAW MATERIAL CONTROL
& PHYSICAL TESTING DEPARTMENT
REPORT

MAY 1952

During the month of May we tested 372 lots of raw materials, of which eight lots were definitely rejected, and three were accepted under protest.

Seven lots of Alpha Protein, totalling 163,400 pounds, offered by the Soya Products Division for use in the manufacture of Spred Satin, were rejected for undesirable viscosity properties and/or excessive uncut residue. Alpha Protein has been out of production for about two months, and these seven samples were the first that we have received since April 1st, at which time we approved three lots, totalling 72,000 pounds. Production was resumed a few days ago, but as yet we have not received any samples for test.

A shipment of 4925 gallons of S-43 from Petroleum Solvents, Inc., was rejected and returned to the vendor because it contained a considerable amount of sulfur compounds. Three subsequent shipments of S-43 from this source have been satisfactory in all respects.

Two tank car shipments of S-23, totalling 18,000 gallons, both received from R. J. Brown on the same day, were accepted under protest because each had an A.P.I. Gravity of 34.0°, whereas our standard ranges from 30.0 to 31.8°. All other properties were satisfactory. No subsequent shipments of S-23 have been received from this vendor.

A 26 drum shipment of VM-132 from the Texas Company was accepted under protest for failure to pass a special air dry test satisfactorily. The test consists of making a 25% cut in S-43, adding 1/4 ounce of VM-433 per gallon, and making a pour test on glass. The material should dry to touch in 30 minutes. However, of the six lots received in the past year only the first two passed this test satisfactorily, and the other four have been accepted under protest. We have consulted with representatives of the Texas Company on this matter, and they have assured us that they are trying to improve their product to pass this test.

We received and set up our Beckman DU Spectrophotometer and Ultra Violet Accessory Set this month, and are now cooperating with the Research Group and the White and Colored Enamel Groups in the preparation of curves showing the light reflectance of freshly prepared, as well as aged and exposed paint and enamel films, and of dry pigments. We are also preparing to use the instrument in the analysis of concentrated driers and of Continental Can Company varnishes for drier metal content. We also expect to purchase a Flame Photometer for use in conjunction with the Spectrophotometer, thus extending its application to the qualitative and quantitative determination of chemical elements.

We have approved the following raw materials for our use at Nubian, particularly as auxiliary sources of supply in case of emergency.

<u>Material</u>	<u>Vendor</u>	<u>Substitute for</u>
X-1467 Sicilian Purple	Imperial Paper & Color Co.	EL-51
#513 Burnt Turkey Umber	Reichard-Coulston, Inc.	New Std. for BM-17
Cadmium Lithopone	Harshaw Chemical Co.	R-192
Paint Grinder's 95% Red Lead	Hammond Lead Products, Inc.	R-201
" " 97% Red Lead	" " "	R-202
" " 98% Red Lead	" " "	R-231
#1380 Irox Red	Reichard-Coulston, Inc.	R-240
Triple Pressed Stearic Acid	Hardesty & Co.	CH-5
Ethylene Glycol	DeMert & Dougherty	CH-181
Varnish Maker's Red Lead	Hammond Lead Products, Inc.	VM-320
Powdered Litharge	" " "	VM-308
Skellysolve Petroleum Naphtha	Skelly Oil Co.	S-43
Drake Mineral Spirits "L"	Drake Petroleum Company	S-43
#50 Hi-Flash Naphtha	Chemical By-Products Co.	S-60
1-2-3 Solvent	" " "	S-123

We have rejected the following raw materials for use at Nubian because of the reasons shown.

<u>Material</u>	<u>Substitute for</u>	
#4175 Brown Oxide	L-439 Mineral Pigments Corp.	Too light & weak
Broad Range Toluol	S-6 Chemical By-Products Co.	Contains benzene
W&P Naphtha	S-42 Mineral Solvents Co.	Short dist. range
Butyl Cellosolve	S-56 West Bend Aluminum Co.	Impure
#90 Solvent	S-123 Chemical By-Products Co.	Low dist. range
Chempro #33	S-123 " "	Low aromatic content
Insecticide Base #8230	S-148 Shell Oil Co.	Off range
82-1/2 K.B. Hi-Flash	S-185 Chemical By-Products Co.	Low K.B. & D.N.S. &
Castung 103 G-H	O-268-C Baker Castor Oil Co.	High Acid No. (foul odor)

A. F. Lucangioli