

January 28, 1935.

Surgeon General, Hugh S. Cumming,
U. S. Public Health Service,
Washington
D. C.

My dear Dr. Cumming:

I have discussed several times with Dr. Sayers the desirability of having the Public Health Service establish minimum color strengths for leaded regular gasoline. :

As you know, the regulations require that the gasoline shall be "distinctly colored" but no definition of this term has ever been made. We feel that a great majority of the leaded regular gasoline is of a satisfactory color from this standpoint but a small amount has been sold which is rather doubtful and, for this reason, we think it desirable to have minimum color standards set up for the various shades. At present, the most practical thing would seem to be to establish these in terms of concentration of a certain definite trade-dye. It is hoped that later by the use of some type of color analyzer it may be possible to establish these on a reproducible numerical scale.

We have already sent Dr. Sayers some preliminary samples of dyed gasolines which he and I have discussed and I am sending him today, for your consideration, some samples of a number of shades which are suggested as, perhaps, satisfactory minimum colors. All of these samples are made up to match by eye appearance presented in a 3" visagauge by gasoline containing the specified dyed concentration. When these gasolines are sold through a visible bowl, the color will be approximately three times as intense and a rough idea of the appearance can be obtained by turning the sample bottles on end and looking through them in that direction.

The shades submitted represent practically all of the shades employed by our licensees. There may be slight variations in shades in some cases but it is believed that sufficiently good matches can be obtained in every case to correspond to these minima. It would be our idea, in case you approve these minima (or any other minima which you may select) to write to each of our licensees enclosing a sample of the solid dye and instructing them in future blends to add dye in an amount, at least, sufficient to that indicated for the particular color in question.

The samples which I am sending Dr. Sayers are listed below together with the dye-stuff concentrations to which they correspond when observed through the 3" visagauge. Samples of the solid dye are also enclosed so that your own laboratory can duplicate these or other shades if desired:

KE 0009329

January 28, 1935

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<u>Sample No.</u>	<u>Color</u>	<u>Grams dye per 100 Gallons Gasoline</u>
1.2-Y	Yellow	1.2 grams du Pont Yellow N
5 O	Orange	0.6 grams du Pont Orange
2 - A	Amber	0.5 grams du Pont Orange plus 0.06 grams du Pont Red
3- Cu	Copper	0.7 grams Patent Chemical Petrol Copper
2- G	Green	1.5 grams Ethyl Green
2- B	Blue	1.0 grams Patent Chemical Ethyl Blue
3- P	Purple	1.25 grams Patent Chemical Petrol Purple 3R

The dry dye samples are as follows:

O-25	du Pont Orange
Y-33	du Pont Oil Yellow N
B-29	Patent Chemical Ethyl Blue
G-4	Ethyl Green
Petrol Copper	Patent Chemical Company
Petrol Purple 3R	Patent Chemical Company

If these samples meet with your approval, we will appreciate your advice accordingly, and if you feel that they are not satisfactory, we will be glad to work with you further and submit other samples as you may suggest.

Very truly yours,

Graham Edgar

GE/LRJ

cc: Dr. R. R. Sayers

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