

FOR COMPANY USE ONLY

DATE January 30, 1968

TEST AUTHORIZATION NO. TA-C- 68-79

OFFICIAL PRODUCT NAME Spray Dried Products

PRODUCT CODE NO. Not applicable POUNDS PRODUCT PROPOSED 10,000 - 30,000 lbs.

AREA "Ponsol"

BUILDING NAME

TITLE Spray Dryer Capacity Improvement

PREPARED BY: G.H.Dawson, A.C.Stein

RESPONSIBLE FOR TEST
AND TEST CONCLUSION: G.H.Dawson, A.C.Stein

PURPOSE OF TEST: To determine if spray drying capacity can be increased by an increase in drying-air inlet temperatures.

DURATION OF TEST: One to six months.

STANDARD INVOLVED: None.

TECHNICAL BASIS FOR CHANGE: Current operating experience indicates that some temperature increase is possible.

TEST DETAILS:
(INCLUDE SAFETY AND WASTE DISPOSAL)

See attachment.

DISTRIBUTION:

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DATE

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AUTHORIZED BY: Verbal approval by H. I. Stryker, 1/30/68

SUPERINTENDENT, PROCESS DEPARTMENT

DATE

G. H. Dawson

1-31-68

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Test Details:

Additional spray drying capacity is urgently needed to meet sales commitments. Many improvements in spray drying operating techniques have occurred since the establishment of the drying temperature limits. It is now believed that these limits can be safely extended upward with a resultant capacity improvement.

Tests would be run on three slow-drying materials, a "Sevron," a "Latyl" and a "Ponsol" dye. Each test would be similar and would consist of:-

1. Prepare the charge and start operation of the spray dryer under normal conditions.
2. Take a product sample as soon as equilibrium is reached.
3. Run a cloth test for dispersibility and a spectral test for color immediately.
4. Increase the drying air temperatures 20°C.
5. Again as soon as equilibrium is reached take a product sample and repeat tests (3).
6. While the tests are being run, return the system to standard temperatures.

A complete test on all properties of the product made at this temperature would be run at Technical Laboratory. If evaluations are satisfactory, repeat the tests with 20°C. incremental temperature increases until the product changes. Then go down 20°C. and establish this as the maximum drying temperature for that product.

If the tests of these three products show higher temperatures and higher production rates are possible, then all slow drying materials would be tested and new temperature limits established.

No new safety problems are introduced nor is there any change in waste disposal.