

DOCUMENT MANAGEMENT SYSTEM  
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Doc# NSCS-M-P-7094-11  
 Title: Cake Thickness  
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 Auth:  
 Desc: Cake Thickness  
 Loc: Midwest - Utilities-Midwest - Plant Maintenance-Midwest-Gary Works

**Purpose:** The purpose of the test is to monitor press performance and provide the Operator some additional reference only information. The Operator only has limited control over the cake thickness, hence, it is not a process controlled variable.

**STEPS**

## Process Overview

Test Procedure  
Sample Selection

## Measuring

## Data Recording

## Corrective Actions

**PROCEDURES**

The sludge cake thickness test is performed by the SDW Operator on each sludge cycle.

The test can tell the Operator that:

- the filter cloths may need cleaned or replaced;
- the sludge pumps are not working properly;
- the membrane air system is not working properly; and
- a membrane or plate may be broken.

This test is both visual and measurement-oriented. First, the Operator selects a piece of sludge cake he believes is representative of the cake being removed from the machine.

After selecting a sample, the Operator measures the cake thickness with a standard metric tape measure or metric ruler. No special calibration of the ruler is required as the information is for reference only.

After measuring the sludge thickness, record the data on the SDW Turn Report Form #7094-02.

See the following SOPs for additional details on press performance and tests.

- NSCS-M-P-7094-01 (pH Corrective Actions)
- NSCS-M-P-7094-02 (Filter Presses)
- NSCS-M-P-7094-06 (pH Measurement)
- NSCS-M-P-7094-07 (Percent Solids Test)
- NSCS-M-P-7094-16 (Filter Cloth Replacement and Plate Clean)

If cake thickness is low, check press operation. If unable to correct the low cake thickness, record it on the SDW Turn Report Form #7094-02 and notify the Manager. Be sure to read the Process Overview section of this S.O.P.