

A PLANT NUMBERING SYSTEM IN A SUGAR FACTORY

by A. G. HURTER

Umfoloji Co-operative Sugar Planters Ltd.

The need of a system of plant identification is generally recognised, and most mills have one system or another. The most basic method is to number each piece of equipment in sequence. Carried to its fullest extent, this serial number can indicate several facts, e.g. year of purchase, maker, type of unit, etc. It is essential that each item carries such a number, and a history card should be made out for this unit from its arrival at the Plant. In order to preserve the identity of that particular unit, the number must never be changed or re used.

If these serial numbers are the only ones issued, one arrives at the situation where, for example, No. 1 Mill is No. 1001, its gearbox 007, and its engine 596. Unrelated numbers such as these are very difficult to remember, and the chances of the system being generally applied, except where enforced by management, are very slight. Attempts are made to juggle the serial numbers around to improve the sequence, but this leads to confusion as soon as there are any plant changes.

Serial numbers cannot be dispensed with, but an additional system of *Site Numbering* should be introduced for day to day use.

The Factory is divided into sections, e.g. cane yard section 100, mill section 200 etc., and each *site* in the section is given a number. A site is defined as the position of a unit of plant within the Plant, and is best explained as being the foundation of that unit. The site number is determined by (a) the section it is in and (b) the duty of the driven unit associated with the site.

In order to break down the number into easily recognisable pieces, a letter prefix is used to indicate the type of driven unit, e.g. C for Conveyor, or B for Boiler etc. Each site in a section is given a number, the first of the three digits indicating what section it is in. Numbers start from the section number for each prefix, i.e. C201, C202, . . . and J201, J202 . . . etc. Then a conveyor in the mill section would be numbered C203, indicating that it is a conveyor and it is in section 200. The motor driving this conveyor is C203M, and the gearbox would be C203G. Should this gearbox be replaced, the new unit will be C203G, and the redundant gearbox will retain only its serial number.

Ancillary equipment such as an oil cooler on an engine could be numbered J201E/01. Identical units performing the same function can be suffixed A, B, C, etc. e.g. J203/A, J203/B etc. Site numbers may be chosen in the sequence of the process flow or from

South to North, East to West, and bottom to top. It is preferable to use a definite system such as East to West etc. and in most factories this can be chosen to conform to the process flow.

The following list of prefixes and suffixes are suggested:

- Prefixes: A — Alternators, Generators, Frequency changers.
 B — Boilers.
 C — Conveyors, Elevators, Carriers.
 E — Evaporators, Heaters, Pans.
 J — Rotating equipment in general — Pumps, Mills, Knives, Crushers, Compressors.
 V — Cranes and Hoists.
 T — Tanks.
- Suffixes: M — Motor.
 E — Engine.
 T — Turbine.
 G — Gearbox.
 /01 . . . Ancillary equipment.

The record card for each unit should be filed under the site number where the unit is installed, and when changes are made, the cards are transferred accordingly. If all works orders and stores requisitions carry the appropriate site number, the records office can enter the details on to the record card for each unit, and a history of cost and performance can easily be built up.

This system is not original, and has been applied with much success in other industries.

Table I

TYPICAL PLANT INVENTORY SHEET

Site Number	Serial No.	Description
J201	2818	No. 1 Mill (Crusher)
J201E	0011	No. 1 Mill Engine
J201G1	0806	No. 1 Mill Primary Reduction Gearbox
J201G2	0530	No. 1 Mill Secondary Reduction Gearbox
J202	2819	No. 2 Mill
C201	2558	Intercarrier Shredder to No. 1 Mill
C201M	5030	Motor for C201
C201G	0591	Gearbox for C201
C202	2559	Intercarrier No. 1 to No. 2 Mill
C202M	5031	Motor for C202
C202G	0598	Gearbox for C202