

25. Compound dyes mfg.
26. Kerosene mfg.
27. Rubber goods mfg.
28. Paints and cosmetics mfg.
29. Pulp mfg.
30. Paper mfg.
31. Artificial silk and staple fibres mfg.
32. Porcelain mfg.
33. Tile roof and earthen pipe mfg.
34. Glass and glass products mfg.
35. Cement and cement products mfg.
36. Wool spinning
37. Linen spinning
38. Silk and rayon weaving.
39. Woolen weaving.
40. Dyeing refining, finishing and bleaching.
41. Veneer plyboard mfg.
42. Wooden fixtures and fire prevention of lumber.
43. Wooden turned articles and circular mfg.
44. "Sake", beer and other brewery.
45. Soy-paste and soy-sauce mfg.
46. Canned and bottled food mfg.
47. Meat products mfg.
48. Sea products mfg.
49. Tea mfg.
50. Book binding.
51. Paper products mfg. (including carbon paper, water proof paper and other manufactured paper)
52. Lacquered ware mfg.
53. Bamboo, willow, patten, other vine and stalk products mfg.
54. Mat, straw mat, flower designed mat and grass mat mfg.
55. Rope, fibre plate and net mfg.



56. Industrial leather products mfg.
57. Celluloid goods mfg.
58. Auto-mobile repair service.
59. Bicycle repair service
60. Railroads and tracks
61. Bus and motor-trucking
62. Mail, telegraph and telehpon
63. Motion picture production.
64. Motion picture enterprises.
65. Nursing, midwives and health-nurse(Hokenfu )



CIVIL SERVICE DIVISION  
Government Section

1 November 1948

MEMORANDUM FOR: Mr. Walter Domanowski, Compensation Specialist  
SUBJECT : Conference on Occupational Coding

The Labor Section of ESS is holding a conference on occupational coding at 1330 hours, Tuesday, 2 November in Room 102, Pacific Building, under the direction of Mr. Saks. They have requested the attendance of a representative from NPA and this division.

Agencies of the Japanese government are contemplating a survey of employment. A part of this survey will include government personnel and to this extent we are interested in being informed on the progress of such a survey. It may be that this can be tied in with personnel reporting statistics which will be developed for the national government. Local government, of course, would not be covered by NPA's own system.

Please attend this meeting and report back on the discussions.

MacDONALD SALTER  
Chief, Classification &  
Compensation Branch

MS:jd

*Files*  
*I. 7.*



PREFACE

*1) Review your info  
2) Files I.7.*

This book is based on the result of the job analysis, and will be a useful material for the Employment Security Administration and the Public Employment Security Offices.

It was planned and written in a very short time so it might not be complete, but we will try to improve it step by step.

The material we have in here is from the Tokyo District Monopoly Bureau Shinagawa Factory, Adachi Factory.

Thanks to all persons who helped us in obtaining information.

March, 1948

Employment Security Bureau  
Labor Ministry

This is a translation of the first twelve pages of the book containing job studies in the tobacco industry. These twelve pages include preface, table of contents, classification, procedure of production, one sentence job summaries, and one full job description.

Although I can see that this is not perfect, I think it is very good - much better than I expected, so unless you have some fundamental criticisms I'll just congratulate Matsuni.



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INDUSTRY  
Tobacco Manufacture

Classification

Major classification (manufacturer)  
Second classification (food stuff industry)  
Minor classification (tobacco mfg.)

No. 1 Contents of Industry  
Production of....Peace, Kinshi, Nozomi

No. 2 Organization of each section. (A Local monopoly Bureau Factory)

DIRECTOR - Secretarial section - Survey section - Tobacco Department -  
Salt & Camphor section

:  
Supervising section  
Ration section  
Productive section  
Receiving casher supervision section

Planning section  
Business section  
Cultivating section  
Technical section

Accountant department - accountant section  
calculating section  
supply section  
material section  
warehouse section  
repair section  
correspondence section - guard, factory workers

Manufacturing department - operation section  
labor, welfare section - welfare section  
labor section  
special tobacco section-----workers  
preparation section -----workers  
winding section-----workers  
arrangement section-----workers  
equipment section-----machinery section --workers  
power section-----workers

Dispensary (director)  
Guard department-----security section  
guard section



3. The importance of this industry.

This industry participates as a most important industry and the profit amounts to 25% of next years' grand total of the budget, and is largely contributing the national treasury. Tobacco is not counted as luxuries any more it is counted as daily needs, and the demand of this industry is increasing day by day.

5. The situation of the industry.

At present there are 33 tobacco factories throughout Japan. Yellow and white tobacco leaves have been used, and in 1947 the production amounted to cigarettes 200,000,000 pieces, cigarettes with mouthpieces, 8,000,000 pieces, cut tobacco 14,200,000 kg hand rolling cut tobacco 15,000,000 kg is supposed to be produced. Yet, the need of cigarettes is rapidly increasing and we find it is very hard to keep up with the demand. In order to straighten this crisis out we are trying to get more machinery and leaf tobacco.

6. The anticipation of the future of this industry.

The tobacco manufacturing industry is a very important industry whether it is a governmental work or not. So there is a big development in this industry.

VII. Comments on the administration of this industry

7. Materials, equipment and supplies

The Monopoly Bureau buys the tobacco leaves directly from the licensed cultivators, sends it out to the drying plant and then to each branch factory.

8. The hazard of the production and the business

From the long years usage of the machinery, the difficulty of obtaining the parts there are many troubles with the machines, and it is affecting the efficiency of the production very much. The workers are another problem after having most of the skilled workers burned out and not coming back to work any more. All we have now are the workers who have had only one or two years experience. The technique is very poor.



9. Matters concerning the Labor Union

There is a staff union established from the staff members, and a labor union, which is doing a concrete job on the efficiency and helping out the daily livelihood of the employees.

10. Welfare Institution

The Welfare Section takes care of the special ration, materials, recreation of the employees, dispensary, nursery, public bath, barber, kitchen, athletic field.

Supplementary Sheet

Tokyo Tobacco Mfg. Shinagawa Factory

By Toshihiko Shiono

Rough Draft of the Work Done

VIII - 12

1. Receiving of the raw material

The necessary amount of leaves are received in daily according to the standards.

2. Conditioning of the material.

Take the raw material out from the warehouse and put it in a room which is conditioned with high heat and moist for 3-7 days and make it soft.

3. Undoing and weighing of the material

The conditioned material is all undone and the actual weight is weighed

4. Selecting and weighing

The leaves will be selected according to the standard, bad parts are taken away, and are weighed separately depending to the usage.

5. Cutting of the stems.

The stems will be cut off by a cutting machine

6. Separating and matching of the material

Separate the leaves one by one and make the material level.



7. Flavour (Flavor No. 1)

Put the material in a flavour machine and flavour it by vaporizer

8. Adjustment of the leaves

To make the next job easy to operate the material is adjusted one by one

9. Piling up of the material.

The leaves which have been adjusted will be put in a certain box and will be lined up and then compressed.

10. The weighing of the piled material

The leaves which have been piled up will be weighed

11. Conditioning of the piled up material

The leaves which have been weighed will be put in a conditioning room as it is in the boxes for 24 hours and have the flavour work thoroughly

12. Cutting of the material

According to the standard the leaves will be cut into a certain size

13. Drying

The leaves are dried to fit the rolling which is the next job

14. Flavor (Flavor No. 2)

The leaves are flavored again after it is cooled

15. Weight Inspection

The leaves are weighed again and put into a certain receiver

16. Conditioning of the cut leaves

The cut tobacco which have been flavored will be piled up for 24 hours to get the flavor through

17. Rolling

The cut tobacco is rolled in a rolling paper by machine and then cut into a certain size.

18. Inspection for rolled tobacco

The tobacco which comes out of the rolling machine is picked up one by one and is inspected carefully.



**19. Arrangement**

Wrapping and packing of the cigarettes to boxes is done by machine.

**20. Inspection of the arranged products**

The arranged product is examined carefully one by one according to the standard.

**21. Craft Wrapping**

The packed small boxes will be wrapped by a craft paper after couple of them are put together.

**22. Box packing**

After it is wrapped by craft paper a certain amount of boxes will be packed in a wooden box.

**23. Finishing of box packing, roping, sending out**

The wooden box is nailed down after the small cartons are packed, roped and then sent out to the accountant official.

**PROCEDURE OF PRODUCTION**

1. Raw material receiver
2. Raw material conditioner
3. Raw material unpacker
4. Selecting and weighing of leaves
5. Stem trimmer
6. Leaf separator
7. Flavorer (first)
8. Leaves adjuster
9. Piler
10. Weigher
11. Donditioner
12. Cutter
13. Dryer



14. Flavorer(second)
15. Paper machine operator
16. Inspector
17. Cigarette arranger
18. Arrangement inspector
19. Craft packer
20. Wooden box packer
21. Finisher of packing and procedure to transport

Illustration of the operation

1. Raw material receiver  
Take in the necessary amount of leaves according to the days work
2. Raw material conditioner  
Put the raw material which is taken out of the warehouse into a room with high temperature and dampness from 3 to 7 days to make leaves soft.
3. Raw material unpacker  
Unpack the conditioned material and weigh it
4. Selecting and weighing of leaves  
Take the unqualified leaves out and select it
5. Stem trimmer  
Cutting of the stem by machine
6. Leaf separator  
To take the leaves apart on the conveyer and make it level
7. Flavorer (first)  
Put the leaves in the flavoring machine and spray it
8. Leaves adjuster  
Take up the leaves and straighten them out
9. Piler  
Pile up the leaves in a box and compress it.



10. **Weigher**  
Weighing of the compressed leaves
11. **Conditioner**  
Take the leaves and leave them in the conditioning room for 24 hours to level the flavor.
12. **Cutter**  
Cut the leaves according to the standard
13. **Dryer**  
Drying of the cut leaves to a certain extent
14. **Flavorer (second)**  
Put the leaves in the flavoring machine and spray it for the second time
15. **Paper machine operator**  
Roll the leaves in paper and cut it in the length which is the standard of cigarettes
16. **Inspector**  
Take up the cigarettes which come through the machine and examine them carefully.
17. **Cigarette arranger**  
Wrapping and boxing of the cigarettes in boxes and wax paper
18. **Arrangement inspector**  
Give a thorough inspection of the boxes which are arranged already
19. **Craft packer**  
Gather the cigarettes boxes by certain numbers and put them in a craft box
20. **Wooden box packer**  
Gather the craft boxes by certain amount and put them in the wooden box
21. **Finisher of packing and sending out**  
Put the lid on the box, nail it, rope it, then send it out



## JOB ANALYSIS

### 1. Raw material receiver

#### Classification

Second classification (food stuff industry)

Minor classification (tobacco mfg.)

Branch (leaf part)

#### 1. Substance of the work

##### (a) What do they do?

Taking out of the raw material from the warehouse  
Mark down the year of production, kind, dryness, other classification of leaves, whether the packing is good or not and pass it to the working place.

##### (b) Why is this done?

To recognize how much tobacco leaves are used.

##### (c) How is this done?

To send the raw material which is checked out of the warehouse to the conditioning room.

(1) Find out the production year, kind, dryness, etc, by touching the leaves by hand (3-40%)

(2) See if the packing is good by touching by hand (2-20%)

(3) See or weigh the raw material (1-10%)

(4) Check the above mentioned items and write it down and then send it to the next working place (3-30%)

### 2. Qualification necessary for the worker

#### (a) Experience.

It is not necessary to have any experience on first employment  
In general the worker will have to be a healthy and powerful man

#### (b) Age

The workers who are working now are between 28-48 years old, but the most suitable ages considered between 25-45 years old.

#### (c) Technical training

There is no special course to train the workers but when they are employed first, they are trained on the job. People who were specially skillful in bookkeeping, abacus, find it easier to start with.



(d) Employment

First they work on trial, and it takes a man two years to do good work

(e) Connections with other work

Promotion - trial - worker - Trainer of worker - supervisor

On transferring it will be best to go to the conditioning room or on transferring to this work it will be best to transfer from the conditioning room, in this case there will not be much change in the production.

The supervision of this work is done mostly by the trainer of workers and the supervisor.

3. Matters necessary to complete this work

(a) Responsibility

The raw material will have to be issued out in time not to delay the production. If this is not done right it will delay every work concerned.

(b) Knowledge concerning the work

Knowledge concerning the classification of tobacco leaves is necessary

(c) Mental work

Accurate judgement is necessary

(d) Dexterity and accuracy is necessary

4. Physical demand for workers

In most cases the workers involved in the job have to use strength and big movements. This is classified as follows:

(a) Important movements

Important movements	Illustration
Walk	To walk back and forth carrying raw materials and to secure the place
Stand	Will have to be standing at all times
Stoop	On unpacking and carrying the materials will have to stoop many times
Stretching of arms	On putting the raw material on shelves and to reach will have to stretch arms
Carry	This is the most important part of this work, to receive and carry the materials



Push	Push the cart with the material and put it into the warehouse
Pull	Pull the cart
Use of the hands	This is the most important part of this work too
Use of fingers	On unpacking and packing etc., the finger is used
Look	To inspect if the packing is done right, if the leaves are good, it will have to be checked carefully by looking

Speed of work - - - -Normal. C class

(b) Physical effect of the work

- (1) Vocational disease. There is no special vocational disease, but this work is indoor work, so in a long run it might cause some effect. If the worker is careful in getting outside in resting hours and exercise it is alright as the work is not continuous
- (2) No fear of injury or deformity, because this work is done by whole body movement.

(c) Physically handicapped

- (1) From the nature of this work it is necessary to be perfect, so this work is unsuitable for disabled persons.
- (2) Handicapped persons who are unable to work in this job are the ones who are color blind, hernia, lung disease, something wrong with the muscles.

No. 5 Omitted, Physical Demand Chart (This may be seen in the Japanese copy)

No. 6 Working conditions

Most of the time this work is done in a room with the door closed so it is lack of fresh air. Another thing special is that this room have to be high temperatured and dampness. Following is the outline of the working conditions.

Working place	Indoor. Mostly with closed windows and door
Ventitlation	Poor
Humidity	The humidity is very high (85% - 95%) Other places normal
Cleanliness	Dirt and dust from the packing and the leave and easily spread out, but it is tried hard to keep the place clean



Noise and vibration

Quiet

Smell

The leaves smell a little but it is almost normal

Temperature

The room needs high temperature (c35° - 38°)

Change of temperature

Normal

Danger of machinery

They have a cart moving back and forth so there is danger on getting between the carts or having the foot caught in the rail. Abrasion

Burns

Electrical danger

Explosion

Poison

No danger from these

This work is done in groups. It is done by working with other people.

#### No. 7 COMMENTS

Equipment, material, supply arrangements and other expenditures

There is a rail leading to the conditioning room, and a cart in which to transport the material, books and papers

Material. Tobacco leaves

There are all kinds of tobacco leaves which is used. Following is the list of the leaves used.

1. "Dharma" leaves

"Dharma" leaves (Tochigi Pref. Ibaraki pref.)

Kirigasaku leaves (Southern part of Ibaraki pref.)

Enshu leaves (Shizuoka pref.)

Awa leaves (Tokushima pref.)

2. Hatano leaves (Kanagawa pref. Hatano)

3. Suifuha leaves (Ibaraki pref. and other places)

4. Kokubu leaves (Kagoshima pref. and other places)

X Japanese yellow leaves. American yellow leaves

This is the kind of leaves which the seeds were imported from the United States and grown in Japan (it is raised all over Japan)

X Others

American leaves, Chinese leaves, Manila leaves, Indo leaves, Barley leaves, Turkey leaves. Barley leaves are grown in Japan too.



(b) Definition of terms.  
Leaves classification

The leaves on the same stem differs according to the place where it grows (top part - bottom part). The reason is that while one tobacco stem grows there are lots of changes till it is fully grown. In order to classify these leaves there is the job of classifying the leaves. The way of classifying the leaves depends upon the kind, but for the leaves which have been produced in Japan it is classified in four parts from the bottom up, "dirt leaf", "middle leaf" "regular leaf" "top leaf".

For yellow leaves it is classified into three "dirt leaf", "middle leaf", "regular leaf".

It depends on how it is grown but the leaves differ in various ways. Ordinary the leaves on the upper part of the stems are far more thicker and the color darker than the leaves at the bottom part.

Dryness classification

at

The leaves which have been cut off/the plant are dried and are finished so it will be suitable to keep in the warehouse at the same time flavoring too. There are four ways to dry the leave air drying, sun light drying, fire drying, pipe drying. There are two more ways to dry the leaves according to the way it is cut, first is to dry the leaves one by one by handing them down from ropes, second is to cut the tobacco leaves from the stem and hang them down by the stem and dry it.

Arrangement classification

Arrange the good and bad leaves together

Degree classification

Tobacco leaves are different in all ways so in order to classify them, there are 9 or 10 classifications for the Japanese leaves, 5 or 6 for barley leaves, 6 or 7 for yellow leaves. The good leaves are thick, color dark and has a good flavor, the bad leaves are the opposite.

Production year classification

Tobacco leaves are different according to the weather and other conditions. It is kept in the warehouse for a long time after it is taken in. That is why it is important to have the year of production clear. For the Japanese leaves they have three classifications which is this years, last years, old years, leaves.

(c) General comments.

The leaves are taken in between September and October, after it is dried it is sent into the factory. In this short time it is very busy but on ordinary days it is not so busy, so the workers are from 2-5 persons who works regularly all the year round.



Supplementary Sheet

Job Title: Stem trimmer

Firm name: Tokyo Tobacco Manufacturing Factory (Shinagawa Branch)

Name of analyst: Mr. Toji Okubo

I - 13 Work performed

(1) What kind of work is done?

Put two bundles of tobacco leaves together and cut off the middle stem by the stem cutter. Put finishing material in a box and put it on a conveyer. Gather the cut off stems and hand it over to the unnecessary products section.

(2) Why is the job done?

This job is done in order to help the next job which is to take the leaves apart and to produce better products. (When you put the stems in the tobacco the product will not be so good)

(3) How is this job done?

Stand in front of the stem cutter;

(a) Take two bundles of the leaves in the hand (hold the end of the leaves) cut off the middle stem by the cutter (3-40%)

(b) Put the finished material which are the leaves with the stems cut off in a box and send it to the next place by a conveyer. (1-35%)

(c) Consolidate the cut off stems and put them in a box (1-25%)

III. Performance requirements

19. Responsibility

If the cutting of the stem is not complete, it will make the next job of the stripping off and cutting of the leaves. It will be the cause of poor production.

On where to cut off the stem there is a standard, so it will have to be cut off at the right place. The machine is a very simple machine but the blade will have to be sharpened about three times a day. If this sharpening is not promptly it will make the work quite difficult.

This job does not bother other peoples' safety.

20. Job knowledge

Must have a thorough knowledge of the classification of tobacco leaves, standards, the machinery of the cutter, and the function of the machine.



21. Mental Application

This work is a very simple job which is done by machinery, but to consider the standard a independent judgement is necessary with a careful sense and accuracy.

22. Dexterity and Accuracy

Considerable care and dexterity is necessary to manipulate the standard with accuracy.

IV. Comments

23. Equipment Stem cutter...made of two round blades 30 cm across, as it goes around it cuts.

Material.....leaf tobacco

Supplies.....couple of boxes

24. Definition of terms.

2 bundles.....one bundle is a bundle of 7-9 leaves

Stem.....the whole portion of (a) is the regular stem but in this case only (b) is considered stem

Finishing Material.....Leaves which had had the stem is called the finished material

Cutting Standard.....This is a standard which is used in cutting the stem, it is considered 14% of a bundle of leaves

25. General Comments.

This job is required of the correct of the cutting and a certain speed, above it there are some danger in using the machine so to be a skilled worker it takes approximately 2 years of training.

Supplementary Sheet

Job title: Stem cutter

Firm Name: Tokyo Tobacco mfg. Shinagawa Branch

XII. Details of physical activities:

Standing work, medium labor

(Carrying) Ones who have "o mark" in the "carrying" column is because usually after the material is put in boxes it is sent by a conveyer but sometimes it has to be carried. Boxes with the stems are often carried by other people, but some times the stem cutter has to carry it too.



(Pushing) "o" mark on this column is because after the boxes are put on a wheel it has to be pushed

(Color Vision) Some times even if the leaves are assorted before they get to this section, there are different shades of leaves in this group so these will have to be picked up.

The speed of this job is not so fast but sometimes it has to be done quickly.

XIII. Working conditions.

When the cutting machine is working it is dusty, but there is nothing special bad conditions in this job.