

DIEBACK HYGIENE GUIDE

An aid for planning forest operations
so that dieback spread is prevented or
minimized

Comprises: Introduction
How to use the guide
Planning Routines A to I
Glossary of terms

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INTRODUCTION

Jarrah dieback is a serious forest disease of southwestern Western Australia. It is caused by the soil borne fungus *Phytophthora cinnamomi*. An effective means of controlling the disease is by the practice of "dieback hygiene". The aim of dieback hygiene is to prevent transport of the fungus from infected to dieback-free forest.

It is necessary to consider dieback hygiene when planning any forest operation in the southwest. Often difficult decisions must be made, and alternative courses of action evaluated.

And in
This guide has been designed to help foresters plan and conduct an hygienic forest operation. It will NOT provide him with the detailed job prescription; this will vary for almost every job and every site. Rather it concentrates on the principles involved, to be used as a guide and memory-jogger at the planning phase of every operation.

NOTE: For the sake of convenience, the guide uses logging as the base operation. For any other proposed activity (e.g. road-works, bauxite mining, fire control, recreation etc) substitute the appropriate word - for example, "pit" for "coupe"; "crusher" for "mill landing" etc.

TO USE THE GUIDE

Enter at Routine A and follow through to Routine I, as directed.

The symbol  denotes an action.

and  denotes a question.

Routine A deals with the different impact of the disease in the major forest types.

Routine B concerns operations planned in dieback-tolerant forests.

Routine C provides for the definition of dieback risk categories.

Routine D provides for dieback-free and protectable stands.

Routine E provides for stands non-protectable from infection.

Routine F provides for dieback or suspect dieback stands.

Routine G concerns access planning.

Routine H is a hygiene failure test.

Routine I is a mechanism for prescription and control.

ROUTINE A : DIEBACK IMPACT

Classify the forest into broad forest type
e.g. karri, karri-marri, jarrah, wandoo etc.

What is
the potential
impact of dieback
on this forest?

Impact Low
e.g. karri,
karri-marri,
and wandoo
forests

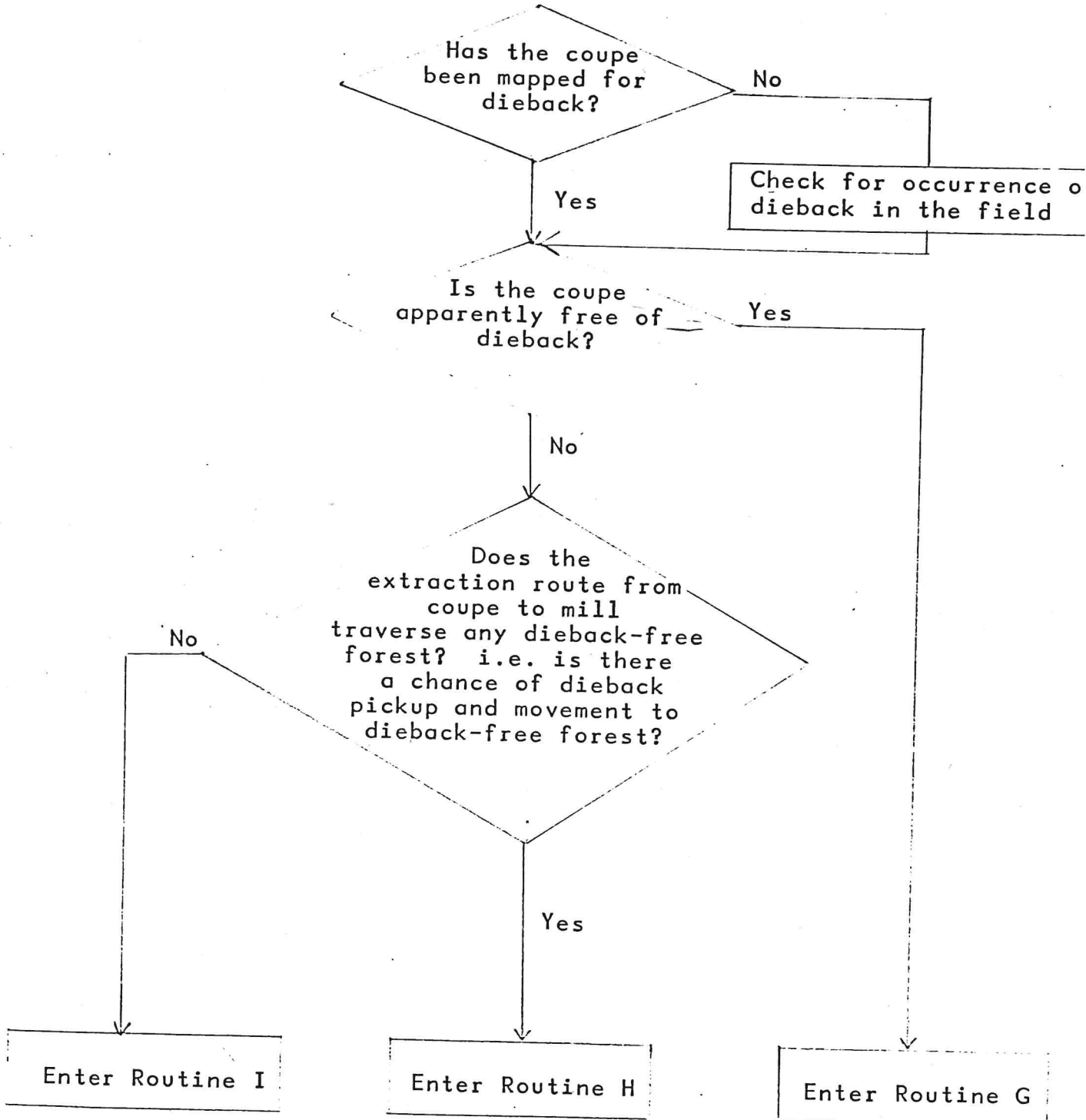
Enter Routine B

Impact High
e.g. jarrah
and jarrah-
marri forests

Enter Routine C

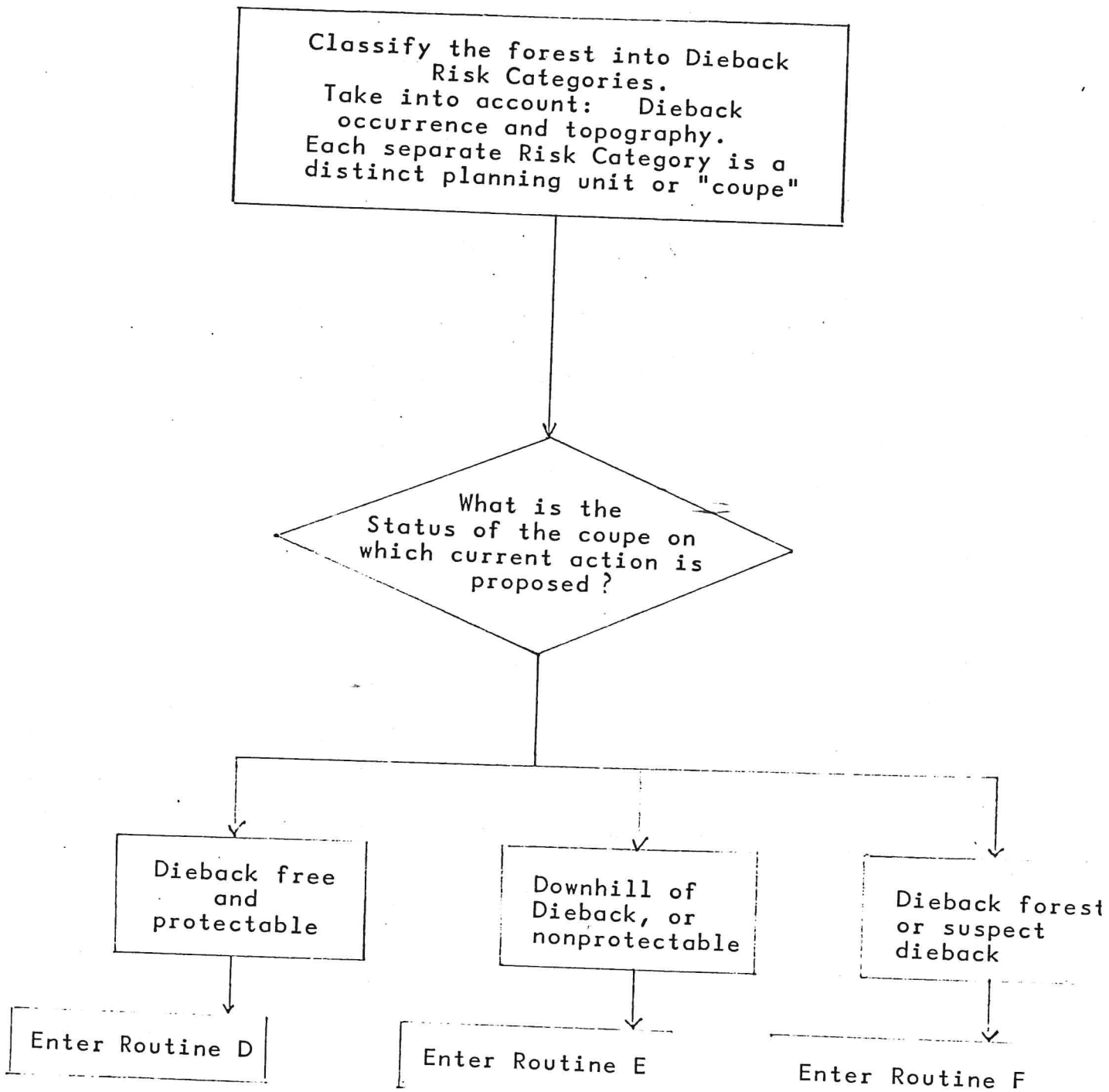
ROUTINE B : DIEBACK TOLERANT FORESTS

For an operation in dieback-tolerant forest:



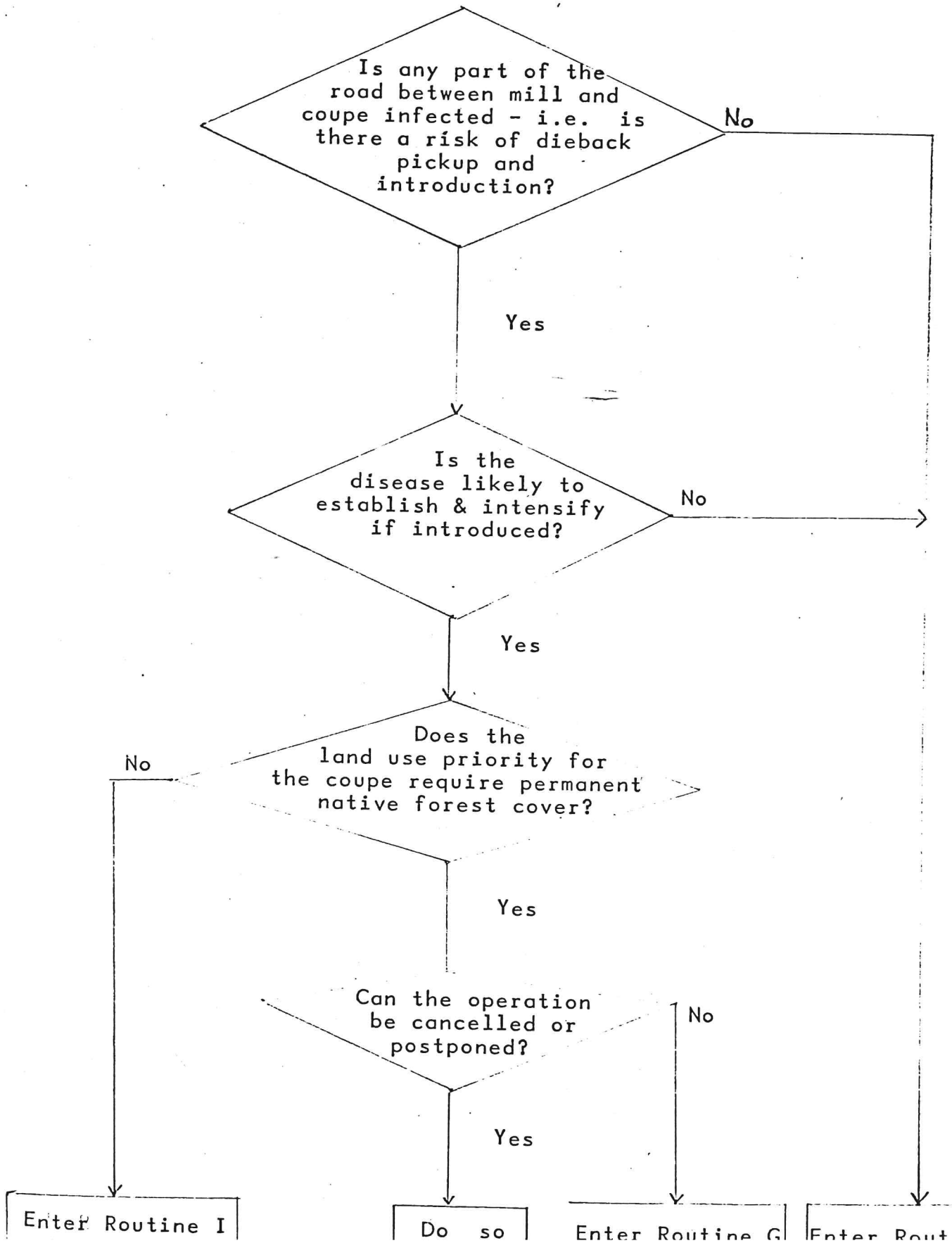
ROUTINE C : DIEBACK RISK CATEGORIES

For forest in which the impact of dieback could be high:



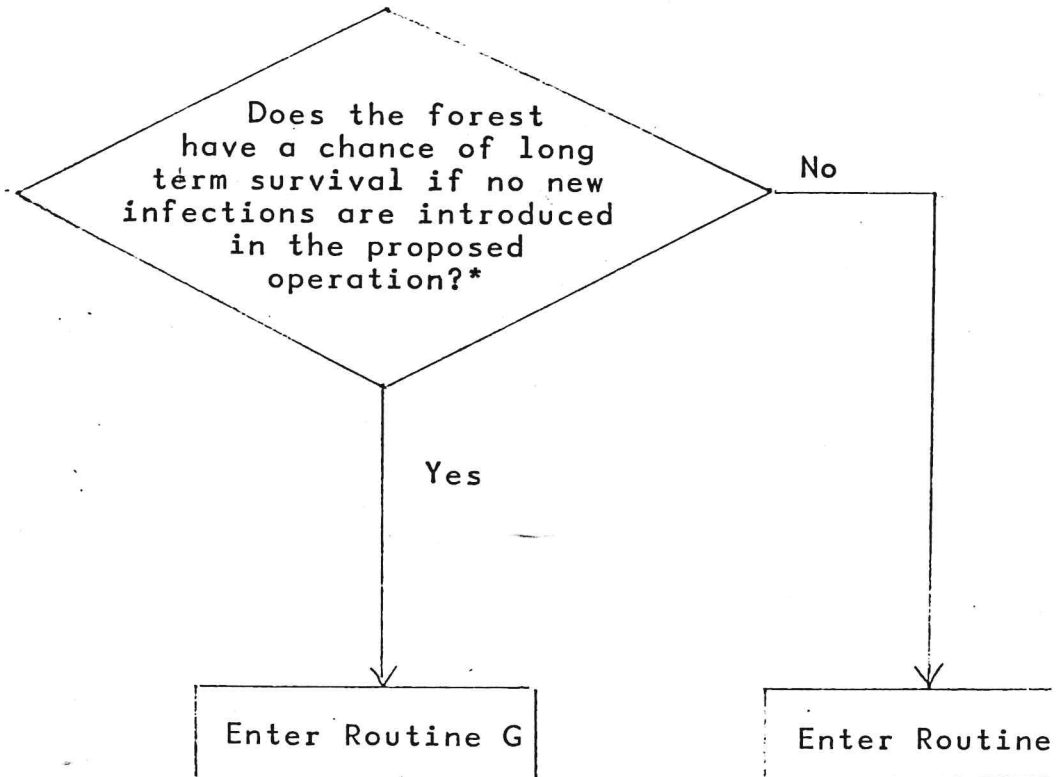
ROUTINE D : THE COUPE IS DIEBACK FREE AND PROTECTABLE

For forest apparently free of infection and upslope of any known infections:-



ROUTINE E : THE COUPE IS NONPROTECTABLE FROM INFECTION

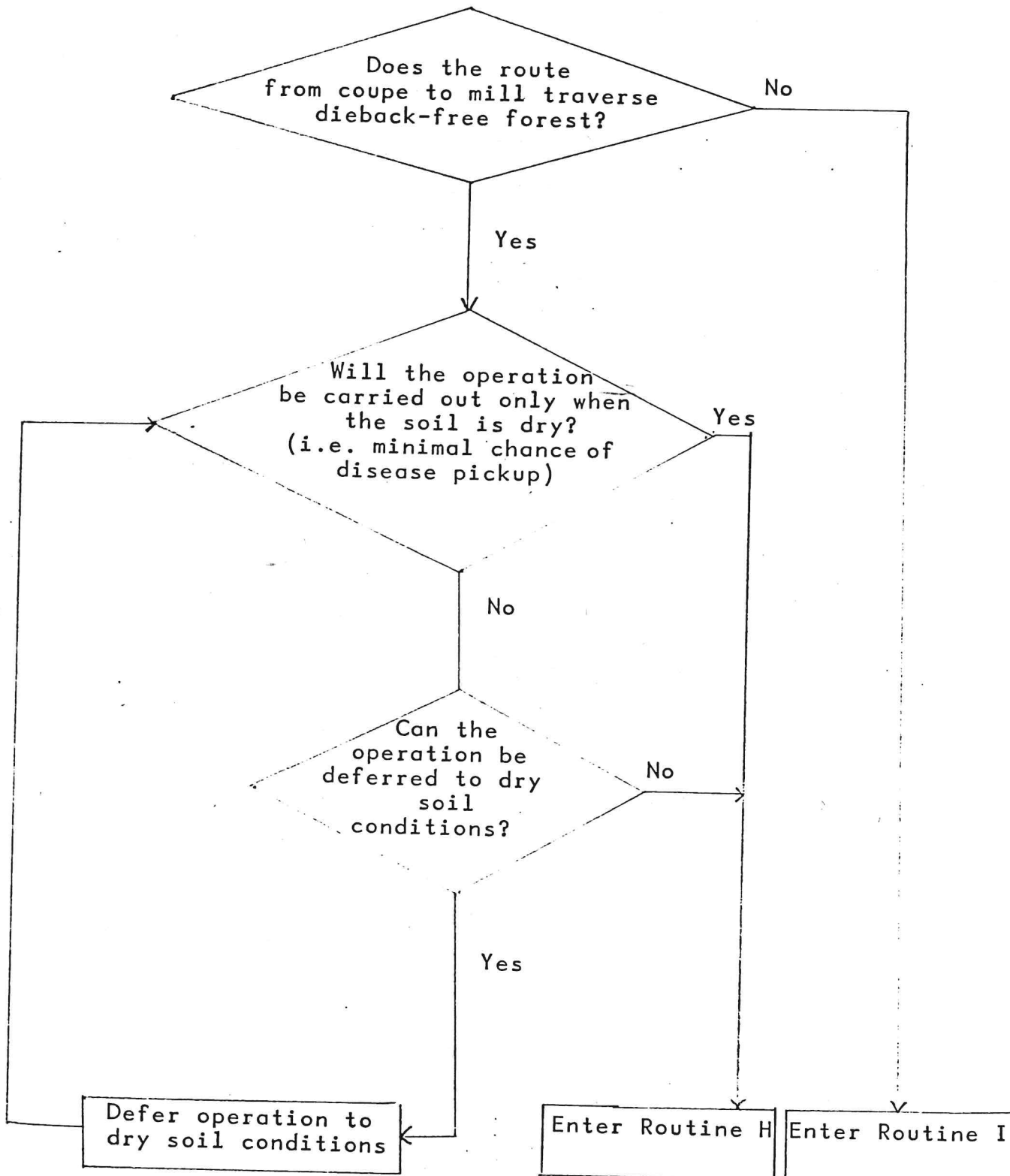
For forest which is downslope of an area already infected with dieback.



* This requires, with present knowledge, a value judgement. If in doubt, check your assessment against that of experienced foresters and research scientists.

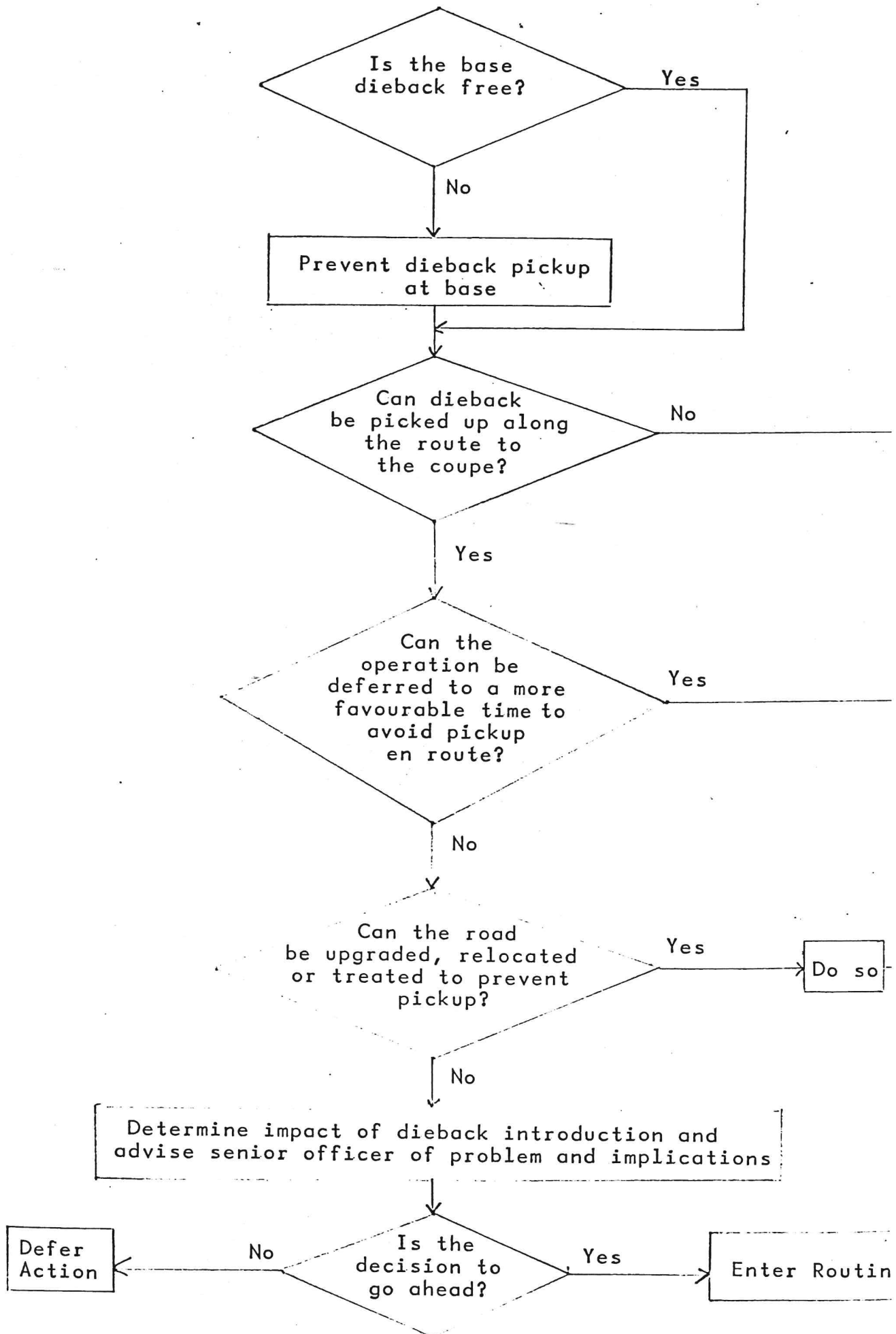
ROUTINE F : THE COUPE IS DIEBACK OR SUSPECT DIEBACK

If an operation is proposed in forest which is already infected, or suspected of being infected, the main risk is of disease pickup and transport to dieback-free forest elsewhere.



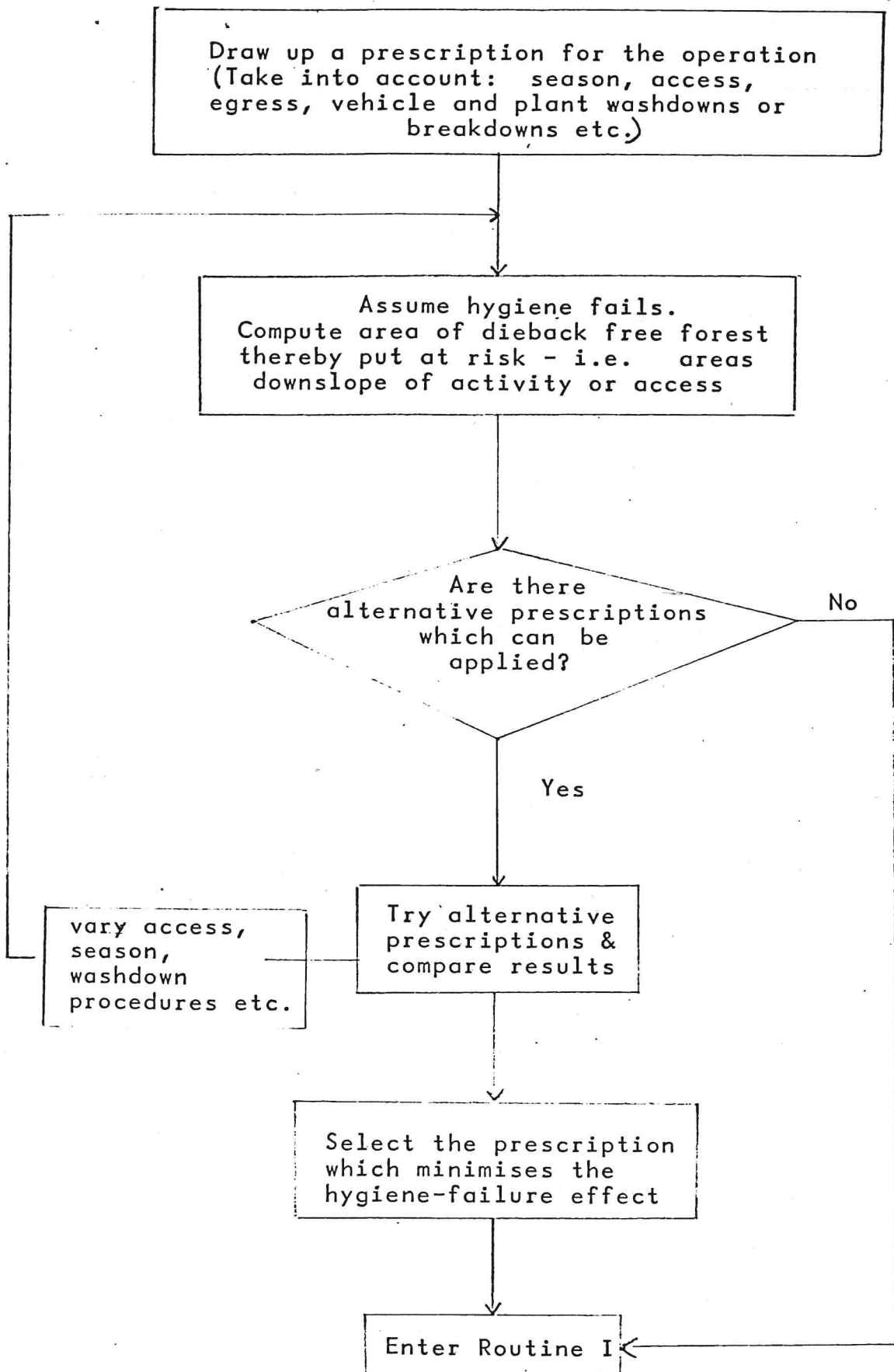
ROUTINE G : ACCESS

For any operation, dieback pickup can occur at the base (i.e. mill landing) or along the route to and from the forest operation.

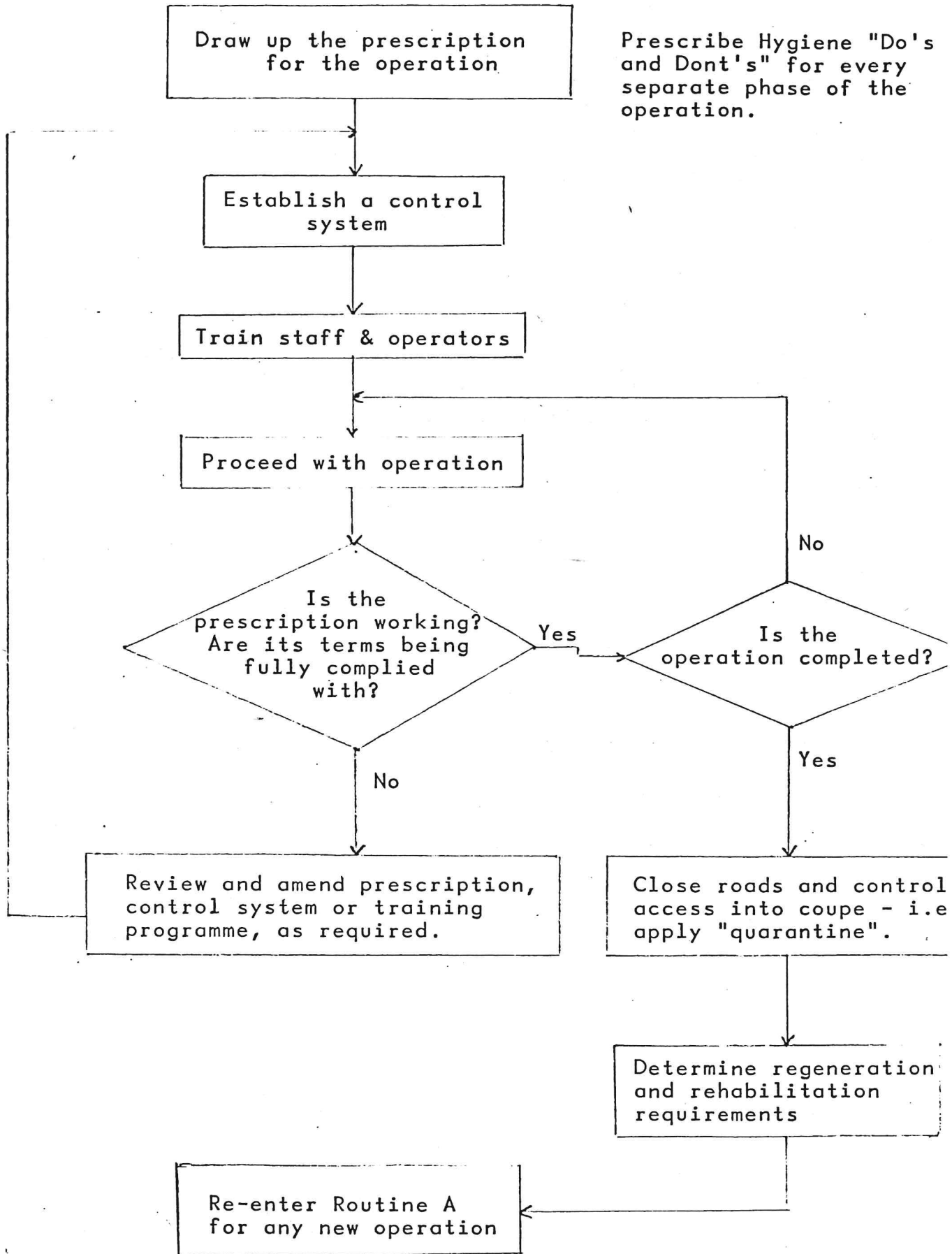


ROUTINE H : THE HYGIENE-FAILURE TEST

For any proposed operation it is necessary to examine the implications of possible hygiene failure.



ROUTINE I : THE OPERATION



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GLOSSARY OF TERMS

- DIEBACK: The W.A. forest disease caused by *Phytophthora cinnamomi* ("P.c.").
- DIEBACK FOREST: Forest in which dieback symptoms are present.
- DIEBACK SYMPTOMS: Decline and death of indicator species in a particular pattern and/or location, suggesting the presence of dieback.
- INDICATOR SPECIES: Plants susceptible to dieback in the field.
- SUSPECT DIEBACK: Forest in which the evidence for dieback presence is inconclusive.
- DIEBACKFREE FOREST: Forest apparently free of dieback.
- DIEBACK TOLERANT FOREST: Forest in which susceptible tree species do not die after infection with P.c.
- PROTECTABLE FOREST: Forest apparently diebackfree and uphill from existing dieback infections.
- NONPROTECTABLE FOREST: Forest downhill from dieback infection.
- DIEBACK IMPACT: The effect of the disease on the forest plants and animals and/or the use to which the forest is to be put.