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Report 01.528

19 July 2001

File: K/9/3/16

[Report 2001.Env01528.BS:mm]

Report to Environment Committee
from Barry Strong, Section Leader, Resource Quality

Agent Orange Investigation

1. Purpose

To update the Committee on recent investigations into the alleged dumping of Agent Orange chemicals in the Hutt Valley.

2. Background

Agent Orange is the name given to a defoliant used extensively in the Vietnam War. It is comprised of a mixture of the organochlorine herbicides 2,4-D and 2,4,5-T. In June we received information claiming that Agent Orange had been manufactured at the former ICI New Zealand site in Seaview and alleging that wastes from this site had been disposed of in the Hutt Valley.

3. Investigations

The organochlorine substances that were used to make Agent Orange are toxic, environmentally persistent, and bio-accumulative. This means that they can continue to have environmental effects long after they were disposed. For this reason we have taken this issue very seriously and have investigated the matter. This investigation has involved the following: searching the WRC records for relevant information; talking to members of the public who had an involvement or knew of activities at the ICI site; and following up the information they have provided. This has involved taking environmental samples around areas where wastes were suspected to have been disposed.

4. **The Findings to Date**

The report we received centred around the old ICI New Zealand site at Seaview in Lower Hutt. This site, established in 1960, was the major manufacturing site for ICI New Zealand until the mid 1980's. During the late 1960's and early 1970's this site handled and processed 2,4-D (2,4-dichlorophenoxyacetic acid) and 2,4,5-T (2,4,5-trichlorophenoxyacetic acid) along with other herbicides and pesticides. Around 1997 ICI New Zealand sold the site and as part of that process commissioned an investigative report on contamination issues at the site. A copy of this report was provided to the WRC in 1997 for review. The report showed no significant contamination issues at the site. Some residual contamination existed but at concentrations below levels which pose a threat to people or the environment. This site is included on our contaminated sites database and is classified as being suitable for industrial use.

We have spoken to representatives of Orica, the company that now own ICI NZ Ltd., and will be meeting with them soon to see what additional information they might have about activities on this site.

As a result of two articles run in the Hutt News we received calls from five people. These people included former-ICI workers and people who had either some involvement with the ICI site or the two sites where waste are alleged to have been disposed.

These people provided a number of accounts about practices at the site which may have resulted in site contamination and have suggested a number of sites where wastes were disposed of. Some of these accounts conflict with each other and none of these accounts can be substantiated by any conclusive evidence.

The following is a summary of the main points made by the people who contacted us.

1. That unwanted drums and chemicals including 2,4-D and 2,4,5-T were dumped at the Wingate Landfill in a period between the late 1960's and early 1970's.
2. That unwanted drums and chemicals were not dumped at Wingate but rather at Cottles Pit in the valley behind the Horokiwi Quarry.
3. That unwanted chemicals were disposed of to a soak hole on the ICI site.
4. That unwanted drums were buried on the ICI site adjacent to the administration buildings under an area currently used as a carpark.
5. That a waste disposal company had dispose of waste chemicals somewhere around Pauatahanui Inlet.
6. That waste chemicals and drums were dumped into Cook Strait.

In response to this information the following investigations have been undertaken:

1. Wingate Tip is owned by The Hutt City Council. In response to this issue The Hutt City Council has engaged a consultant to sample and analyse leachate from the Wingate tip for the presence of Acid Herbicides (2,4-D and 2,4,5-T are part of this group). Due to the dry weather the consultant encountered difficulties in obtaining a sufficient volume of leachate to undertake this analysis. They have recently excavated into the fill to enable the collection of a sufficient volume of this leachate for sampling. The results of this analysis were not available at the time this report was written.
2. We have taken samples from the stream flowing from Cottles Pit and analysed them to detect acid herbicides and organochlorine pesticides. The results show no trace of 2,4-D, or 2,4,5-T. The only substance detected at very low levels was MCPA.
- 3.&4. We have reviewed the 1997 ICI site investigation report again. The consultant's report was detailed and did cover many of the areas and issues raised by callers. Groundwater wells were installed at the down gradient boundary of the site. Any contaminants discharged or buried at the site would most probably affect groundwater. The results of monitoring from these wells showed no indication of contamination by 2,4-D or 2,4,5-T.
5. We have been unable to gain any information that can direct us to any particular site around Pauatahanui Inlet.
6. We have spoken to the Maritime Safety Authority and searched our own records and can find no records of these chemicals being dumped at sea.

5. **Where to from Here**

We will be meeting with representatives from Orica to see if company records can provide any information which can clarify this issue.

We are still seeking comments and information from members of the public.

We are awaiting the results of sampling done at Wingate Tip by The Hutt City Council. Further action will depend on the outcome of these results.

6. **Communication**

This issue has received a lot of attention from the Hutt News and Newstalk ZB. Further press releases will be made if and when additional information becomes available.

7. Recommendation

That the report be received and its contents noted.

Report prepared by:

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