

Internal Letter

R. D. Skinned
Rockwell International

Date April 14, 1983

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TO: *Mr. [illegible]*
File

FROM: *Mr. [illegible]*
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SUBJECT: LETF Fluoride Incident, 3 March through 31 March 1983

During a regular mid discharge water analysis on 3 March 1983, fluorides exceeding legal limits of 1 part per million (PPM) were discovered in both the Bowl Area (R-1) and Perimeter Pond (PP) reservoirs.

The samples taken indicated fluoride levels of 18 PPM at R-1 and 8 PPM at PP. Upon receipt of these reports, underdrains at both reservoirs were closed. However, rainfall run-off continued to cause an involuntary discharge from PP that could not be stopped until Noon on 6 March.

A water sample taken for fluoride contamination at Bell Canyon Estates on 3 March at 3:00 p.m. was 1.6 PPM. Since the level at PP was lower than R-1 and PP is downstream, we can assume this reading at Bell Canyon was the maximum reached at this point in the flow channel.

In order to contain the involuntary overflow from Area I and bring the continuing discharge under control the following system settings were initiated on 3 March and modified throughout the discharge as fluoride levels and environmental conditions changed.

DATE	TIME	SETTING OR ACTION	REASON
3 March	1:30 p.m.	Closed PP underdrain	Fluorides exceeding discharge limits
3 March	2:30 p.m.	Activated PP return pump (flows to R-1)	Minimize involuntary discharge from R-1
* 4 March	2:00 p.m.	Activated spray disposal system at R-1	Reduce fluoride levels, obtain freeboard, prevent overflow
** 6 March	10:00 p.m.	Construct headwall at R-1 inlet	Isolate reservoir and by-pass rain water
6 March	10:00 p.m.	Closed PP inlet	Isolate reservoir and by-pass both rain water and spray run-off

* I originally proposed this spray disposal system during the mid summer fluoride incident of June 1981 to evaporate the large volume of contaminated water at R-1. During this disposal process, I observed that the spray run-off was substantially under the reservoir level and that some type of fluoride salts were most likely being formed. Subsequent rainfall run-off from the area did not reflect excessive fluoride levels. Since our current problem was in a period of heavy rainfall, evaporation could not be utilized and continued spraying with fluoride reduction due to salt formation afforded the most suitable treatment process. Run-off from this spray was monitored daily for magnitude and reduction.