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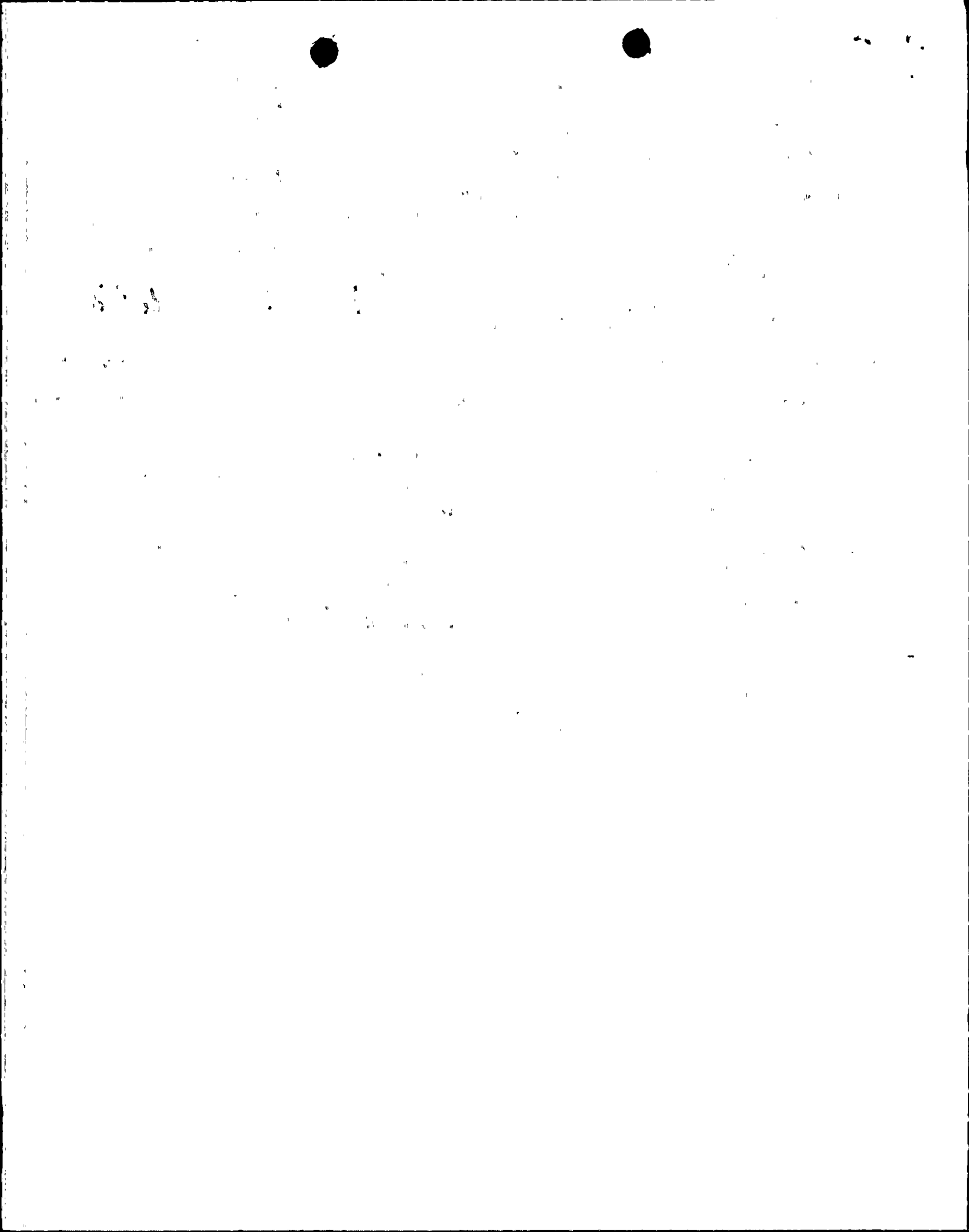
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SUBJECT: Forwards response to NRC 870529 questions re secondary sys liquid waste discharge to onsite evaporation ponds.

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INTERNAL:	ACRS	6 6	ARM/DAF/LFMB	1 0
	NRR/DEST/ADE	1 1	NRR/DEST/ADS	1 1
	NRR/DEST/CEB	1 1	NRR/DEST/MTB	1 1
	NRR/DOEA/TSB	1 1	NRR/PMAS/ILRB	1 1
	OGC/HDS1	1 0	<u>REG FILE</u> 01	1 1
	RES/DE/EIB	1 1		
EXTERNAL:	EG&G BRUSKE, S	1 1	LPDR	1 1
	NRC PDR	1 1	NSIC	1 1
NOTES:		1 1		





## Arizona Nuclear Power Project

P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

July 31, 1987  
161-00413-JGH/JBK

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Subject: Palo Verde Nuclear Generating Station (PVNGS)  
Units 1, 2 and 3  
Docket Nos. STN 50-528 (License NPF-41)  
STN 50-529 (License NPF-51)  
STN 50-530 (License NPF-65)  
NRC Request for Additional Information  
Regarding Onsite Evaporation Ponds for  
Palo Verde  
File: 87-F-005-419.05; 87-056-026

References: (A) Letter to ANPP from U.S. NRC (Subject: Same; dated May 29, 1987).  
(B) Letter to U.S. NRC from ANPP (Subject: Same; 161-00280-JGH/DAL; dated June 12, 1987).

Dear Sir:

Reference (A) requested a schedule for submittal of additional information on three items to support Staff evaluation of PVNGS secondary system liquid waste discharge to the onsite evaporation ponds. Reference (B) indicated the information would be provided by July 31, 1987.

Attachment A provides ANPP's response to the three questions cited in Reference (A).

If you have any questions or require additional information, do not hesitate to call.

Very truly yours,

J. G. Haynes  
Vice President  
Nuclear Production

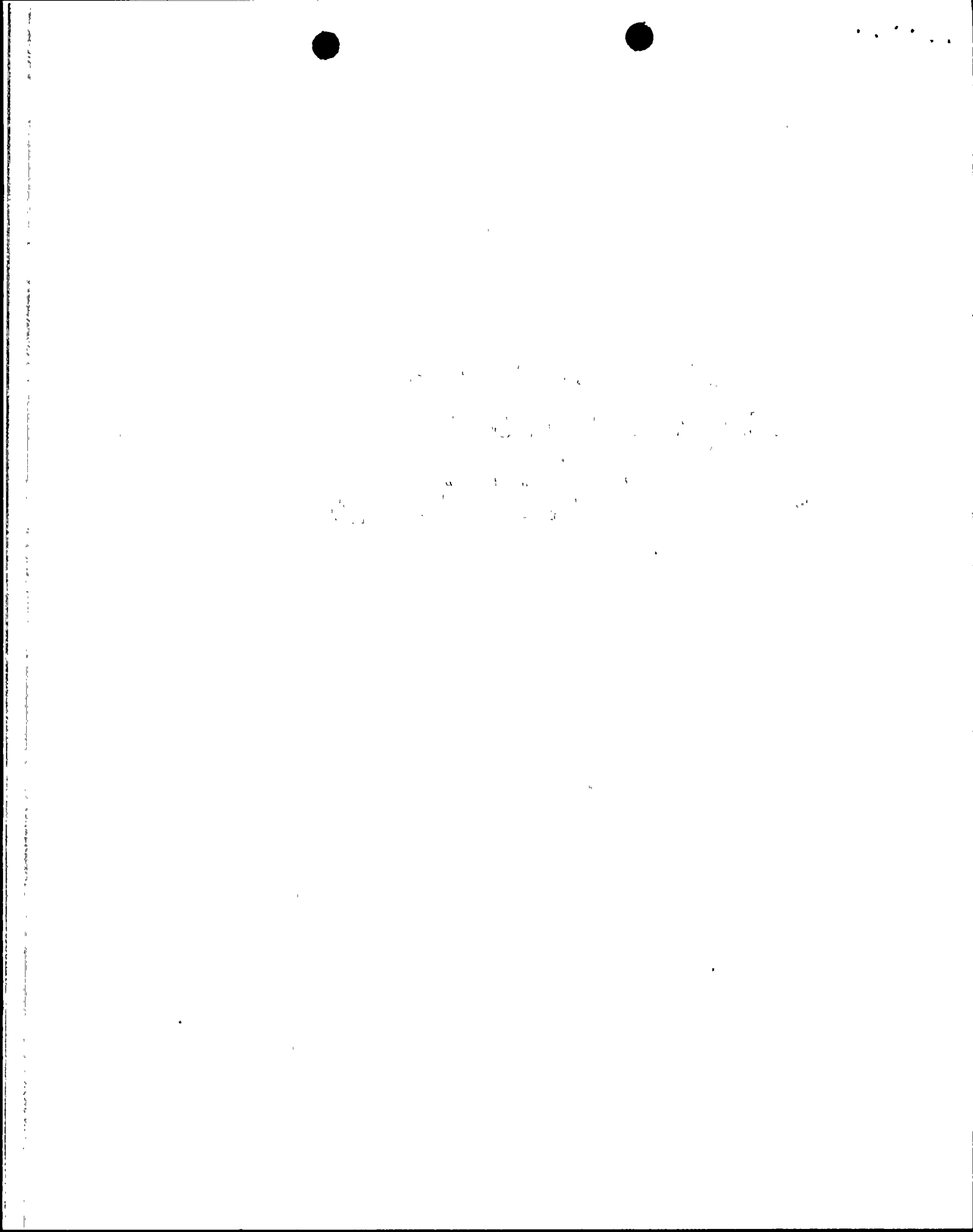
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JGH/JBK/dlm  
Attachments

cc: O. M. De Michele (all w/a) R. P. Zimmerman  
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G. W. Knighton A. C. Gehr  
E. A. Licitra

Acc  
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ATTACHMENT A  
ANPP RESPONSES TO NRC QUESTIONS

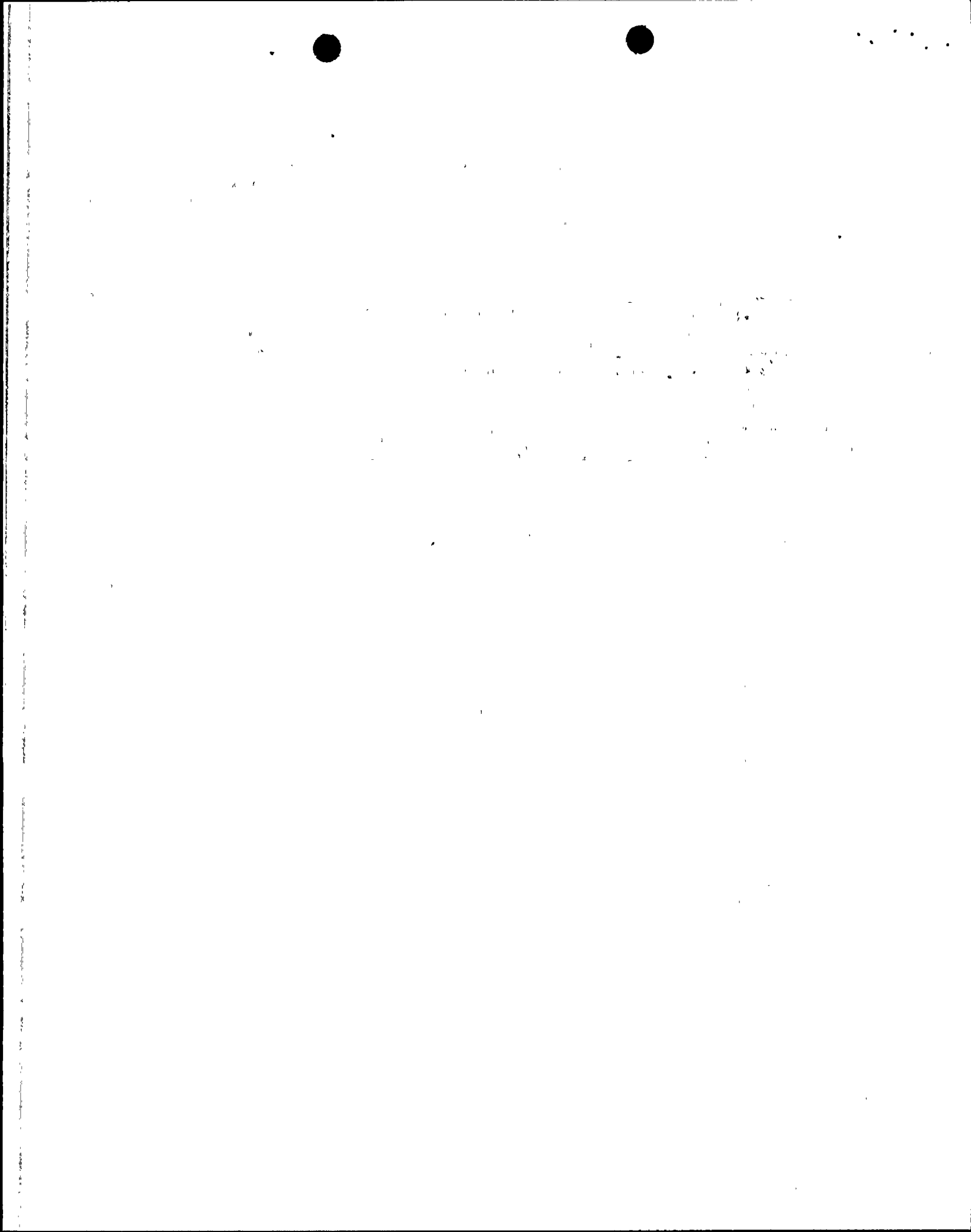


### NRC QUESTION 1

Provide an estimate of the quantities, concentrations and surface density of Antimony-124, as well as the other radionuclides, that are expected to be in the evaporation ponds at the time of decommissioning of the plant site. Briefly describe the bases for the estimates.

### ANPP RESPONSES

Attachment B provides the information for Question 1 and Question 2. Summarizing, Attachment B indicates the Antimony-124 contribution to potential post-operational radiation exposures is essentially zero, even if discharged continuously for the plant lifetime at the offsite MPC value as currently authorized. Additionally, the current discharge limits for other nuclides also result in a hypothetical dose to an individual remaining atop the dried pond sediments which is a very small fraction of either the EPA or NRC dose standards.



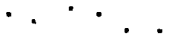
NRC QUESTION 2

Provide an estimate of the doses a member of the public would receive from the principal pathways of exposure to Antimony-124, as well as the other radionuclides that are expected to be in the ponds, at the time of decommissioning of the plant site. At least two cases should be analyzed: (1) assume that the ponds were evaporated to dryness and no remedial action(s) were taken; and (2) assume some remedial action(s) (e.g., the ponds are covered over with a layer of material, or the surface of the sediments from the dried ponds are scraped up) were taken. Briefly describe the bases for the dose estimates.

ANPP RESPONSE

See ANPP Response to NRC Question 1.





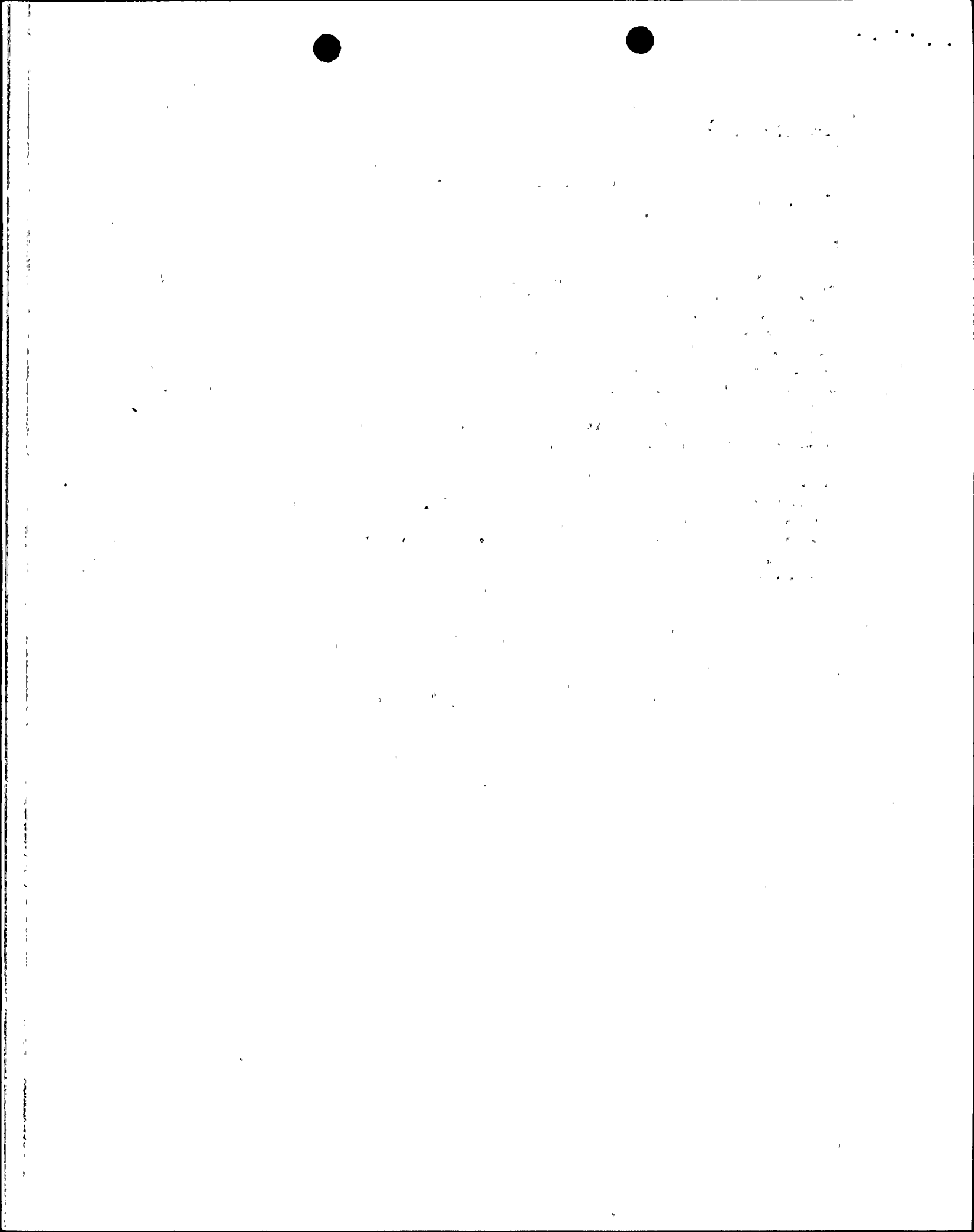
### NRC QUESTION 3

Briefly describe the method by which the Arizona Nuclear Power Project keeps track of the total quantities of Antimony-124, as well as other radionuclides, accumulating in the ponds.

### ANPP RESPONSE

The Arizona Nuclear Power Project performs a surveillance test (74ST-1/2/3ZZ02, "Chemical Waste Neutralization Tank Surveillance Test") prior to release of liquid radioactive effluents to the onsite evaporation pond from the Chemical Waste Neutralization Tank(s). This surveillance test is performed on a batch basis for each release. Included in the surveillance test are provisions for determining and recording the gamma isotopic activity and the tritium activity of the liquid contained in the chemical waste neutralization tank being released. Activities which are below the Lower Level of Detection (LLD) are also recorded in the surveillance test. No provision is in the surveillance test for recording the volume of the tank being discharged.

There is currently no "running record" of the total activity for any radioactivity released to the onsite evaporation pond. Activity contained within the evaporation pond is monitored as part of the Radiological Environmental Surveillance Program. All information relative to the discharged liquid content is maintained as part of the Surveillance Test archive and is retrievable through the Nuclear Records Management Department.



ATTACHMENT B

REPORT ON RADIONUCLIDE DISCHARGES  
TO ONSITE EVAPORATION PONDS  
AND CONSEQUENT DOSES

