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 STN-50-530 Palo Verde Nuclear Station, Unit 3, Arizona Public 05000530
 AUTH. NAME: AUTHOR AFFILIATION
 VAN BRUNT, E. E. Arizona Public Service Co.
 RECIP. NAME: RECIPIENT AFFILIATION
 TEDESCO, R. L. Assistant Director for Licensing

SUBJECT: Forwards response to NRC Questions 450, 18 & 450-19 re control room habitability. Responses will be incorporated into FSAR in upcoming amend.

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	EMRG. PRP. DEV 35	1	1	EMRG. PRP LIC 36	3	3
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	I&EI 06	3	3	LIC GUID BR 33	1	1
	LIC QUAL BR 32	1	1	MATL ENG BR 17	1	1
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The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for ensuring the integrity of financial data and for facilitating audits. The text also highlights the need for clear communication and collaboration between all parties involved in the process.

In addition, the document outlines the various methods and tools used to collect and analyze data. It mentions the use of spreadsheets, databases, and specialized software to streamline the data collection process and to facilitate the analysis of large volumes of information. The text also discusses the importance of data security and the need to implement appropriate safeguards to protect sensitive information.

Finally, the document concludes by emphasizing the need for ongoing monitoring and evaluation of the data collection and analysis process. It suggests that regular reviews and updates to the methodology and tools used can help to ensure that the data remains accurate and relevant over time.

The second part of the document provides a detailed overview of the data collection and analysis process. It begins by describing the various sources of data and the methods used to collect it. This includes interviews, surveys, focus groups, and the use of existing data sources. The text also discusses the importance of developing a clear and concise data collection plan that outlines the objectives of the study, the methods to be used, and the timeline for data collection.

Once the data has been collected, the next step is to analyze it. The document discusses various statistical and qualitative analysis techniques that can be used to identify patterns and trends in the data. It also emphasizes the importance of interpreting the results of the analysis in the context of the research objectives and the broader field of study.

Finally, the document discusses the need to communicate the findings of the data collection and analysis process to the relevant stakeholders. It suggests that clear and concise reports and presentations can help to ensure that the findings are understood and acted upon.

In conclusion, the document emphasizes the importance of a systematic and transparent approach to data collection and analysis. It suggests that by following the principles and methods outlined in the document, researchers can ensure that their data is accurate, reliable, and useful for informing decision-making.

ARIZONA



PUBLIC SERVICE COMPANY

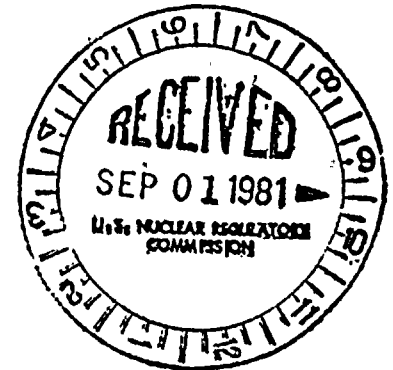
STA. _____

P.O. BOX 21666 - PHOENIX, ARIZONA 85036

August 26, 1981

ANPP-18759 - JMA/TFQ

Mr. R. L. Tedesco
Assistant Director for Licensing
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555



Subject: Palo Verde Nuclear Generating Station
(PVNGS) Units 1, 2 and 3
Docket Nos. STN-50-528/529/530
File: 81-056-026; G.1.10

Reference: Letter from R. L. Tedesco, NRC, to E. E. Van Brunt, Jr.
dated August 13, 1981, subject: Request for Additional
Information - PVNGS - (Accident Evaluation Branch)

Dear Mr. Tedesco:

Attached are responses to NRC Questions 450.18 and 450.19 for your use.
These responses will be incorporated into the FSAR in an upcoming amend-
ment.

Please contact me if you have any further questions on these matters.

Very truly yours,

E. E. Van Brunt, Jr.
APS Vice President,
Nuclear Projects
ANPP Project Director

EEVBjr/TFQ/av
Attachment

cc: J. Kerrigan (w/a)
P. Hourihan (w/a)
A. C. Gehr (w/a)

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STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I, Edwin E. Van Brunt, Jr., represent that I am Vice President Nuclear Projects of Arizona Public Service Company, that the foregoing document has been signed by me on behalf of Arizona Public Service Company with full authority so to do, that I have read such document and know its contents, and that to the best of my knowledge and belief, the statements made therein are true.

Edwin E. Van Brunt, Jr.
Edwin E. Van Brunt, Jr.

Sworn to before me this 26th day of AUGUST, 1981.

Connie Lou Armstrong
Notary Public

My Commission expires:

June 24, 1983



Question 6A.61

(NRC No. 450.18)

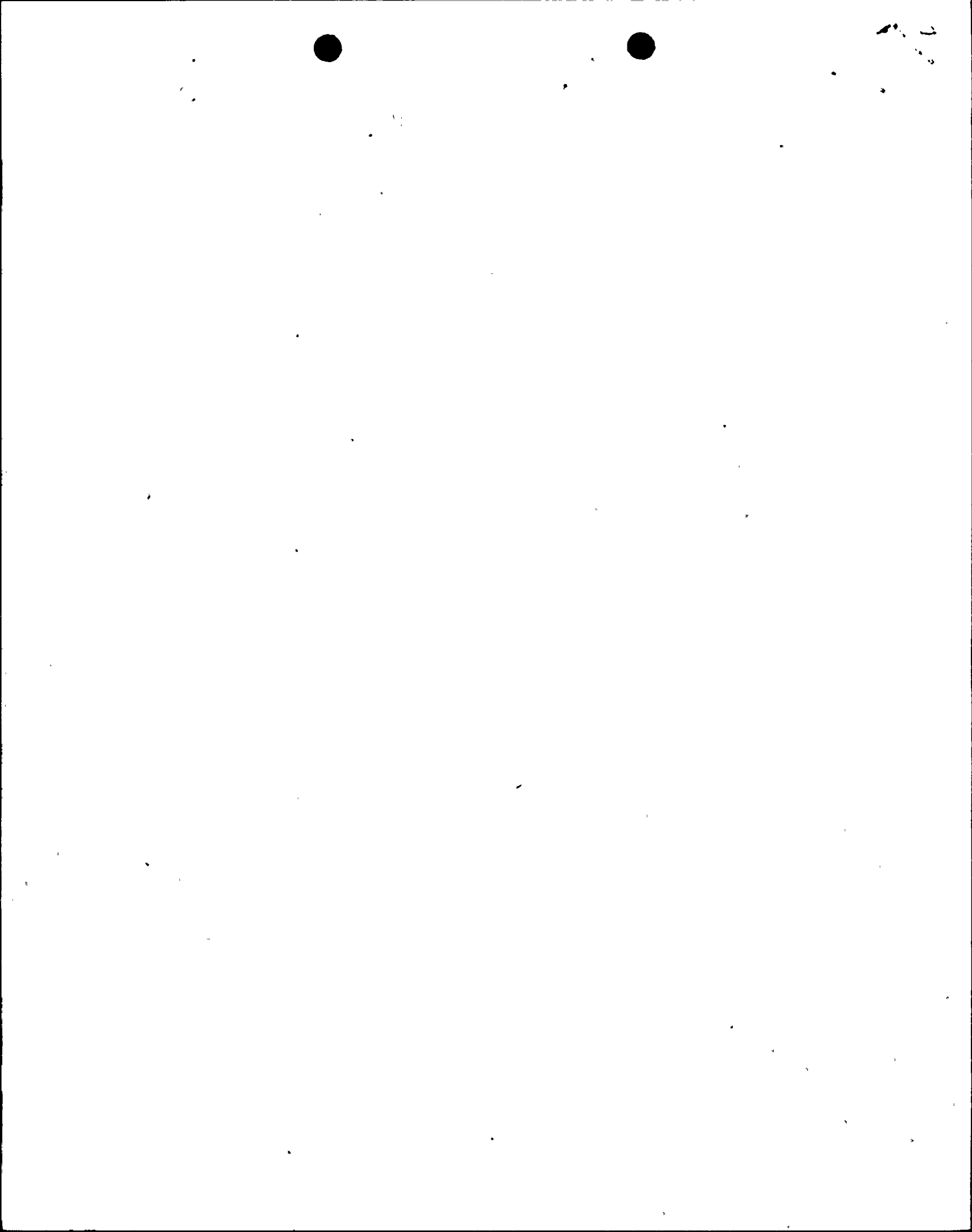
(6.4)

Provide the following information required for the control room habitability evaluation:

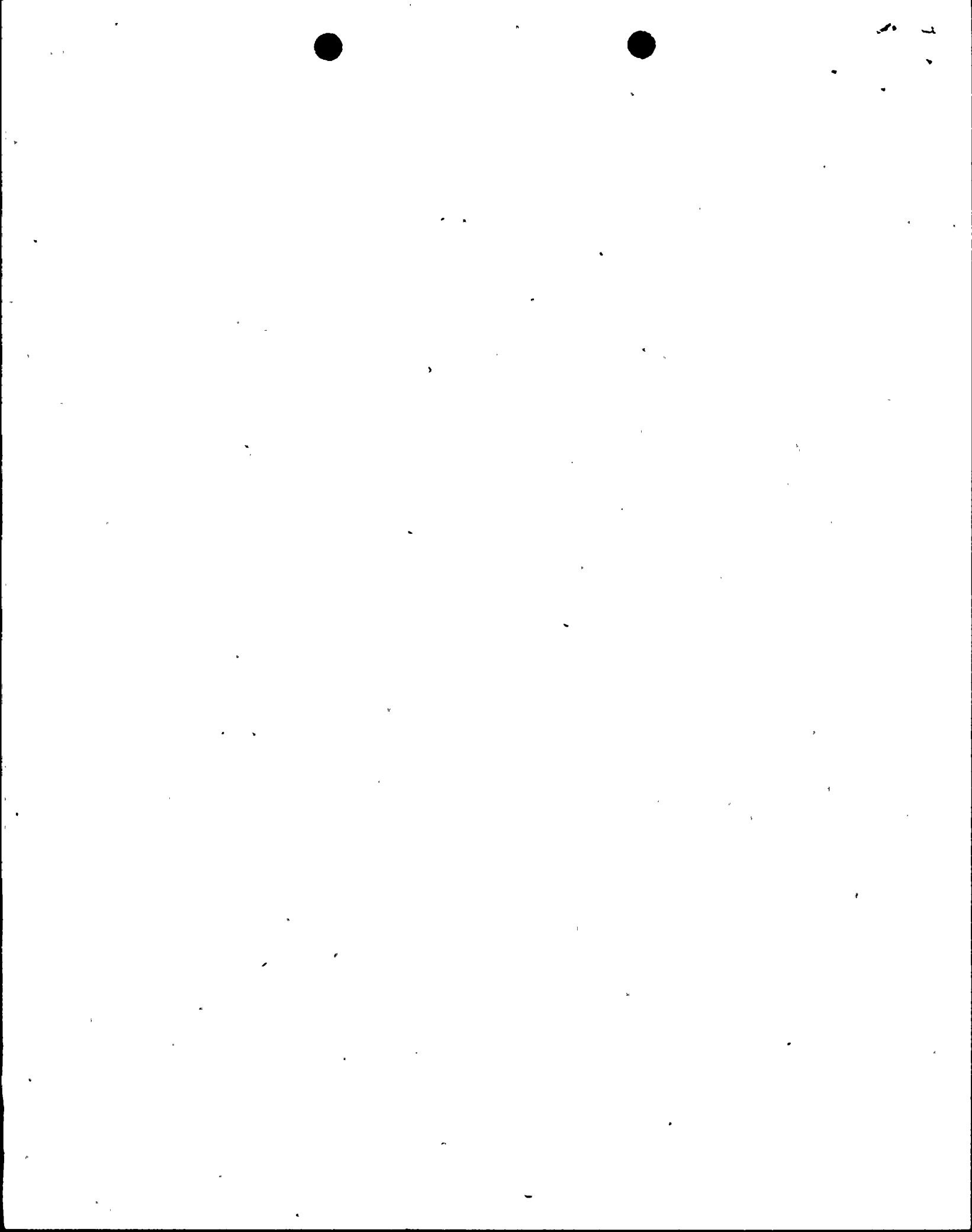
- (1) control room shielding including radiation streaming from penetrations, doors, ducts, stairways, etc.:
- (2) Self-contained breathing apparatus availability (number)
- (3) bottled air supply (hours supply)
- (4) control room personnel capacity (normal and emergency)
- (5) potassium iodide drug supply
- (6) control room emergency filtration system including the capability to maintain the control room pressurization at 1/8-inch water gauge, verification of isolation by test signals and damper closure times, and filter testing requirements.

RESPONSE:

- 1) The required information is provided in FSAR section 6.4.2.5 and LLIR section II.B.2.
- 2) The required information is provided in paragraph M of section 6.4.2.2.2.
- 3) The required information is provided in paragraph M of section 6.4.2.2.2.
- 4) There is no specific design limit on the number of personnel permitted in the control room under normal operation. Refer to the PVNGS Security Plan for additional details of control room access restrictions. As noted in sections 6.4.1, 6.4.2.2.2 and 6.4.4.3, 6 persons can be accommodated in the control room in emergencies.



- 6
- 5) Sufficient potassium iodide will be stored in the control room to supply 6 persons for 7 days, as noted in paragraph D of section 6.4.4.3.
 - 6) The required information is provided in sections 6.4.2.2, 6.4.2.3, 6.4.2.4, 6.4.3.2, 6.4.4.3, and 6.4.5.



Question 15A.54 (NRC No. 450.19)

(15.7.4)

In order to complete our evaluation of the fuel handling accident analysis we request that you provide the following information:

- (1) Location of RMS detector used to isolate containment refueling purge system and air flow transit time between detector and valve based on normal flow rates.
- (2) Specify if the RMS detector used to isolate containment refueling purge system is ESF grade and redundant and if so, include location of redundant detector.
- (3) Location of RMS detector used to isolate fuel handling building in the event of a Fuel Handling Accident and air flow transit line between detector and damper based on normal flow rates.
- (4) Specify if RMS detector used to isolate fuel handling building, in the event of a fuel handling accident, is ESF grade and redundant and if so, include location of redundant detector.

RESPONSE: As noted in sections 15.7.3.1 and 15.7.3.2, offsite doses due to fuel handling accidents will be a small fraction of 10CFR100 limits even without isolation or filtration of containment or fuel building exhausts. The design, however, does include radiation monitors to sense the occurrence of an accident and initiate protective action.

- 1) The PAPA area radiation monitors isolate the containment refueling purge upon high radiation. They are located just outside the containment between the refueling purge exhaust ducting and the power access purge ducting as shown on figure 12.3-4. Air flow transit time is less than 1/4 second.



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- 2) There are two redundant, safety grade monitors, 13-J-SQA-RU-37 and 13-J-SQB-RU-38. Refer to section 11.5.
 - 3) Area radiation monitor 13-J-SQA-RU-31 is located on the east wall of the fuel building adjacent to the spent fuel pool. The detector will register the evolution of airborne radioactivity from the pool within 1/4 second.
 - 4) 13-J-SQA-RU-31 is safety grade. The redundant safety grade monitor has 2 channels, low range, and high range (13-J-SQB-RU-145 and 13-J-SQB-RU-146). It is located just below the roof level and samples the exhaust downstream of the dampers isokinetically. The sample transit time is less than 10 seconds between duct and monitor.

FOR