

ATTACHMENT 1
TO
AEP:NRC:0055I

LIST OF CHANGES TO
APPENDIX A TECHNICAL SPECIFICATIONS
DONALD C. COOK NUCLEAR PLANT
UNIT 1 - DPR-58

REMOVE PAGES

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3/4 3-65
3/4 11-13

INSERT PAGES

3/4 3-63
3/4 3-65
3/4 11-13

NOTE: Revisions are noted by a vertical line in the right hand margin of the page.

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TABLE 3.3-13

Radioactive Gaseous Effluent Monitoring Instrumentation

<u>Instrument</u>	<u>Minimum Channels Operable</u>	<u>Applicability</u>	<u>Action</u>
1. Waste Gas Holdup System Explosive Gas Monitoring System			
a. Hydrogen Monitor	(1)	**	30
b. Oxygen Monitor	(2)	**	29
2. Condenser Evacuation System			
a. Noble Gas Activity Monitor	(1)	****	28
b. Flow Rate Monitor	(1)	****	27
3. Unit Vent, Auxiliary Building Ventilation System			
a. Noble Gas Activity Monitor	(1)	*	28
b. Iodine Sampler Cartridge	(1)	*	32
c. Particulate Sampler Filter	(1)	*	32
d. Effluent System Flow Rate Measuring Device	(1)	*	27
e. Sampler Flow Rate Measuring Device	(1)	*	27
4. Containment Purge System ***			
a. Noble Gas Activity Monitor	(1)	**** ¹	31
b. Particulate Sampler	(1)	**** ¹	32
5. Waste Gas Holdup System			
a. Noble Gas Activity Monitor Providing Alarm and Termination of Gas Decay Tank Releases	(1)	**** ²	33
6. Gland Seal Exhaust			
a. Noble Gas Activity Monitor	(1)	****	28
b. Flow Rate Monitor	(1)	****	27

TABLE 3.3-13 (Cont)

TABLE NOTATION

- Action 27 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours.
- Action 28 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided grab samples are taken at least once per 8 hours and these samples are analyzed for gross activity within 24 hours.
- Action 29 With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, operation of this system may continue for up to 30 days. With 2 channels inoperable, operation of this system may continue for up to 30 days, provided grab samples are taken and analyzed every 12 hours.
- Action 30 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, operation of this system may continue for up to 14 days, provided grab samples are taken and analyzed every 12 hours.
- Action 31 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirements, immediately suspend PURGING of radioactive effluents via this pathway.
- Action 32 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via the affected pathway may continue for up to 30 days provided samples required for weekly analysis are continuously collected with auxiliary sampling equipment as required in Table 4.11-2.
- Action 33 With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment for up to 14 days provided that prior to initiating the release:
- a. At least two independent samples of the tank's contents are analyzed and,
 - b. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge valve lineups;
- otherwise, suspend release of radioactive effluents via this pathway.

RADIOACTIVE EFFLUENTS

EXPLOSIVE GAS MIXTURE

LIMITING CONDITION FOR OPERATION

3.11.2.5 The concentration of oxygen in the waste gas holdup system shall be limited to $\leq 3\%$ by volume if the hydrogen in the system is $\geq 4\%$ by volume.

APPLICABILITY: At all times.

ACTION:

- a. With the concentration of oxygen in the waste gas holdup system $> 3\%$ by volume but $\leq 4\%$ by volume and containing $\geq 4\%$ hydrogen, restore the concentration of oxygen to $\leq 3\%$ or reduce the hydrogen concentration to $< 4\%$ within 96 hours.
- b. With the concentration of oxygen in the waste gas holdup system or tank $> 4\%$ by volume and $> 4\%$ hydrogen by volume without delay suspend all additions of waste gases to the system or tank and reduce the concentration of oxygen to $\leq 3\%$ or the concentration of hydrogen to $\leq 4\%$ within 96 hours in the system or tank.
- c. The provisions of Specification 3.0.3, 3.0.4 and 6.9.1.13 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.5 The concentration of oxygen in the waste gas holdup system shall be determined to within the above limits by continuously monitoring the waste gases in the waste gas holdup system with the oxygen monitors required OPERABLE by Table 3.3-13 of Specification 3.3.3.10.

ATTACHMENT 2
TO
AEP:NRC:0055I

LIST OF CHANGES TO
APPENDIX A TECHNICAL SPECIFICATIONS
DONALD C. COOK NUCLEAR PLANT
UNIT 2 - DPR-74

REMOVE PAGES

3/4 3-59
3/4 3-61
3/4 11-13

INSERT PAGES

3/4 3-59
3/4 3-61
3/4 11-13

NOTE: Revisions are noted by a vertical line in the right hand margin of the page.

TABLE 3.3-13

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b. Iodine Sampler Cartridge	(1)	*	32
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a. Noble Gas Activity Monitor Providing Alarm and Termination of Gas Decay Tank Releases	(1)	**** ²	33
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TABLE 3.3-13 (Cont)

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- a. At least two independent samples of the tank's contents are analyzed and,
 - b. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge valve lineups;
- otherwise, suspend release of radioactive effluents via this pathway.

RADIOACTIVE EFFLUENTS

EXPLOSIVE GAS MIXTURE

LIMITING CONDITION FOR OPERATION

3.11.2.5 The concentration of oxygen in the waste gas holdup system shall be limited to $\leq 3\%$ by volume if the hydrogen in the system is $\geq 4\%$ by volume.

APPLICABILITY: At all times.

ACTION:

- a. With the concentration of oxygen in the waste gas holdup system $> 3\%$ by volume but $\leq 4\%$ by volume and containing $\geq 4\%$ hydrogen, restore the concentration of oxygen to $\leq 3\%$ or reduce the hydrogen concentration to $< 4\%$ within 96 hours.
- b. With the concentration of oxygen in the waste gas holdup system or tank $> 4\%$ by volume and $> 4\%$ hydrogen by volume without delay suspend all additions of waste gases to the system or tank and reduce the concentration of oxygen to $\leq 3\%$ or the concentration of hydrogen to $\leq 4\%$ within 96 hours in the system or tank.
- c. The provisions of Specification 3.0.3, 3.0.4 and 6.9.1.13 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.5 The concentration of oxygen in the waste gas holdup system shall be determined to within the above limits by continuously monitoring the waste gases in the waste gas holdup system with the oxygen monitors required OPERABLE by Table 3.3-13 of Specification 3.3.3.10.

ATTACHMENT 3
TO
AEP:NRC:00551

The following are the bases for the proposed Units 1 and 2 Technical Specifications changes and clarifications.

1. Technical Specification 3.11.2.5 states "The concentration of oxygen in the waste gas holdup system shall be limited to $\leq 2\%$ by volume if the hydrogen in the system is $\geq 4\%$ by volume." Historically, we have maintained or attempted to maintain the waste gas holdup system at $\leq 4\%$ oxygen with hydrogen at $\geq 4\%$. While operating with these limits, we have experienced several instances where excess oxygen contamination is present. Corrective actions have always been to only reduce the oxygen concentration to $< 4\%$.

Typical data over the approximate 8-years operation indicates the oxygen concentration in both the gas decay tanks and the CVCS holdup tank gas space is usually 2-3% with approximately 20% of the values between 3-4% oxygen. We have no operating experience with the system at $< 2\%$ oxygen in the presence of hydrogen. It is not known whether a concentration of $\leq 2\%$ oxygen can be achieved with our system as it has never occurred or been attempted.

Every excursion where the oxygen concentration exceeded 4% can usually be attributed to some finite physical action. The major source of this oxygen contamination has been the introduction of oxygenated water into the CVCS holdup tanks. This had occurred either by recycling an evaporator monitor tank or draining the reactor coolant system or refueling cavity. The recycle of a monitor tank has been administratively addressed and repeat occurrences should not occur. The draining of oxygenated reactor coolant or refueling cavity to the CVCS holdup tanks is being addressed via procedural changes and a design change which should significantly reduce the probability of waste gas system oxygenation.

Once the waste gas system is contaminated with oxygen, a very slow operation of gas purging is undertaken. Initially, any gas decay tanks found to have oxygen contamination at $\geq 4\%$ are sampled for release. The CVCS holdup tank gas space (or spaces) that is (are) contaminated are purged of the oxygen by pumping all available CVCS holdup tank liquid into the contaminated tank. (If more than one CVCS tank gas space is contaminated, the process must be repeated for each tank.) If the tank is not full ($>85\%$ volume) additional liquid must be added. The gas expelled during the filling contaminates another gas decay tank (or more than one) creating a new waste gas release. Once full, the liquid is then transferred to another CVCS holdup tank and nitrogen is used as

cover gas during the pumpout. This nitrogen could come from the nitrogen header or a gas decay tank filled with nitrogen. Historically, the oxygen contamination is rarely limited to one CVCS holdup tank gas space, since they are all connected to the vent header. An oxygen contamination cycle usually "causes" 4-6 gas decay tank releases. This was with the object to reduce the oxygen to < 4%. If "cleanup" is continued to less than 2% as the Technical Specification required, increase in the nitrogen used will probably increase our gas decay tank releases.

In order for I&MECo. to avoid a non-compliance with Technical Specification 3.11.2.5 on April 15, 1983, we request your expedited review and approval of our requested change. We would be glad to provide any further information you need to assist you in your review.

2. Table 3.3-12, Item 3a - There is no "flow monitor" in the turbine building sump effluent line continuous composite sampler as the item implies as written. In Table 4.3-8, the daily channel check of the turbine building sump composite sampler flow monitor (Table 3.3-12, Item 3a) is defined as a visual check of the sample bottle to ensure that a sample is being collected.
3. Table 3.3-13, Item 1b requires two oxygen monitors to be operable. Our current oxygen monitors do not have a high enough reliability level to meet the requirement that both of them be operable at all times. RFC-2591 was written to replace these instruments with a more reliable instrument. The proposed Technical Specification change is required to change Action 29 to allow up to 30-days with only one instrument operable; and Action 30 with no instruments operable if grab samples are taken every 12 hours.
4. Table 3.3-13, Item 3 - The Auxiliary Building Ventilation system is part of the Unit Vent System. Effluent releases via the Auxiliary Building Ventilation System required weekly sample analysis. Action 32 for Table 3.3-13 should specify only weekly analysis requirements of Table 4-11-2 which does not include tritium.

ATTACHMENT 4
TO
AEP:NRC:0055I

This Attachment contains a copy of the pages which require changes in the Appendix A Technical Specifications for Unit 1 (Attachment A) and Unit 2 (Attachment B). These changes were not included in Amendments No. 69 and No. 51. It should be noted that these changes were correctly included in the final version of the revised Radiological Effluent Technical Specifications (AEP's letter of September 17, 1982, No. AEP:NRC:0055F).

ATTACHMENT A

The following are the missed changes in the affected pages from Amendment No. 69.

1) Page 1-9

In Table 1.2, the notation for "P" was not included and should be added. It was correctly done in Unit 2's Amendment No. 51.

2) Page 6-12

T/S 6.5.2.8 - Wrong word
It should be "Solidification", not "Modification".

3) Page 6-12

T/S 6.5.2.9, (Definition of Authority of the NSDRC) was missing in its entirety. Again, it was correctly done in Unit 2's Amendment No. 51.

4) Page 6-13

T/S 6.7.1(d), Report submission time of 10 days is inconsistent with Unit 2's time; Submittal time should be 14 days.

TABLE 1.2
FREQUENCY NOTATION

<u>NOTATION</u>	<u>FREQUENCY</u>
S	At least once per 12 hours.
D	At least once per 24 hours.
W	At least once per 7 days.
M	At least once per 31 days
Q	At least once per 92 days.
SA	At least once per 184 days.
R	At least once per 549 days.
S/U	Prior to each reactor startup.
H.A.	Not applicable.

→
P

Completed prior to each release

ADMINISTRATIVE CONTROLS

Solidification

- m. The PROCESS CONTROL PROGRAM and implementing procedures for ~~modification~~ of radioactive wastes at least once per 24 months.
- n. The performance of activities required by the Quality Assurance Program to meet the criteria of Regulatory Guide 1.21, Rev. 1, June 1974 and Regulatory Guide 4.1, Rev. 1, April 1975 at least once per 12 months.

AUTHORITY

RECORDS

6.5.2.9 Missing in its entirety

6.5.2.10 Records of NSDRC activities shall be prepared, approved and distributed as indicated below:

- a. Minutes of each NSDRC meeting shall be prepared, approved and forwarded to the Vice Chairman, Engineering and Construction, AEPSC, within 14 days following each meeting.
- b. Reports of reviews encompassed by Section 6.5.2.7 above, shall be prepared, approved and forwarded to the Vice Chairman, Engineering and Construction, AEPSC, within 14 days following completion of the review.
- c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the Vice Chairman, Engineering and Construction, AEPSC, and to the management positions responsible for the areas audited within 30 days after completion of the audit.

6.6 REPORTABLE OCCURRENCE ACTION

6.6.1 The following actions shall be taken for REPORTABLE OCCURRENCES:

- a. The Commission shall be notified and/or a report submitted pursuant to the requirements of Specification 6.9.
- b. Each REPORTABLE OCCURRENCE requiring 24 hour notification to the Commission shall be reviewed by the PNSRC and submitted to the NSDRC and the Chief, Nuclear Engineer.

ADMINISTRATIVE CONTROLS

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated:

- a. The facility shall be placed in at least HOT STANDBY within one hour.
- b. The Safety Limit violation shall be reported to the Commission and to the Chairman of the NSDRC within 24 hours.
- c. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the PNSRC. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components, systems or structures, and (3) corrective action taken to prevent recurrence.
- d. The Safety Limit Violation Report shall be submitted to the Commission, the Chairman of the NSDRC and the Vice President, Nuclear Engineering within 14⁵ days of the violation.

6.8 PROCEDURES

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, November, 1972.
- b. Refueling operations.
- c. Surveillance and test activities of safety related equipment.
- d. Security Plan implementation.
- e. Emergency Plan implementation.
- f. Fire Protection Program implementation.
- g. PROCESS CONTROL PROGRAM implementation.
- h. OFFSITE DOSE CALCULATION MANUAL implementation.
- i. Quality Assurance Program for effluent and environmental monitoring using the guidance in Regulatory Guide 1.21, Rev. 1, June 1974 and Regulatory Guide 4.1, Rev. 1, April 1975.

6.8.2 Each procedure and administrative policy of 6.8.1 above, and changes thereto, shall be reviewed by the PNSRC and approved by the Plant Manager prior to implementation and reviewed periodically as set forth in administrative procedures.

ATTACHMENT B

The following are the missed changes in the affected pages from Amendment No. 51.

1) Page XVI

- a) 6.5.1, Function and Composition indicated as changed to Page 6-6. No new page 6-6 included in submittal and the change indicator should be deleted.
- b) 6.5.1, Responsibilities - wrong page 6-7 is listed. It should be 6-6
- c) 6.5.1, Authority - wrong page 6-8 is listed. It should be 6-7.

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