



February 27, 1997

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Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
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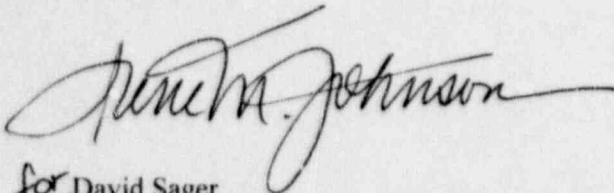
Subject: Summary of Offsite Dose Calculation Manual Revisions, January - December 1996

Attachment I contains a summary of the changes made to the Commonwealth Edison Company (ComEd) Offsite Dose Calculation Manual (ODCM) during the period of January through December 1996. Revisions were made to all six site annexes.

Manual changes were submitted to your office as part of the normal controlled document distributions. However, in accordance with Technical Specifications, an entire copy of the ODCM, current as of December 31, 1996, is also provided as Attachment II.

Please contact Eileen Murphy at (630) 663-3817 if you have any questions regarding the ODCM.

Sincerely,


for David Sager
Vice President Generation Support

cc: NRC Region III w/out Attachment II
G. F. Dick, Braidwood/Byron Project Manager - NRR, w/out Attachment II
J. F. Stang, Dresden Project Manager - NRR, w/out Attachment II
D. Skay, LaSalle Project Manager - NRR, w/out Attachment II
R. M. Pulsifer, Quad Cities Project Manager - NRR, w/out Attachment II
C. Y. Shiraki, Zion Project Manager - NRR, w/out Attachment II

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ATTACHMENT I

Changes to Site Annexes of the ODCM

Attachment I

Summary of ODCM Revisions by Station:

<u>Station</u>	<u>Chapter, Revision Number</u>	<u>Revision Date</u>
Braidwood	Chapter 11, Revision 1.9	June 1996
	Chapter 12, Revision 1.9	June 1996
	Appendix F, Revision 1.9	June 1996
	Chapter 12, Revision 2	December 1996
	Appendix F, Revision 2	December 1996
Byron	Chapter 11, Revision 1.3	March 1996
	Chapter 12, Revision 1.3	March 1996
	Appendix F, Revision 1.3	March 1996
Dresden	Chapter 10, Revision 1.6	April 1996
	Chapter 10, Revision 1.7	May 1996
	Chapter 10, Revision 1.8	June 1996
	Chapter 12, Revision 1.2	June 1996
LaSalle	Chapter 10, Revision 1.8	November 1996
	Chapter 11, Revision 1.8	November 1996
	Chapter 12, Revision 1.8	November 1996
Quad Cities	Chapter 10, Revision 1.8	June 1996
	Chapter 11, Revision 1.8	June 1996
	Chapter 12, Revision 1.8	June 1996
	Appendix F, Revision 1.8	June 1996
Zion	Chapter 10, Revision 1.7	April 1996
	Chapter 12, Incorporated into Rev 1.7	April 1996
	Chapter 11, Revision 1.1	September 1996
	Chapter 12, Revision 1.7	September 1996
	Chapter 10, Revision 1.8	October 1996

Braidwood Station
Chapter 11 Change Summary
ODCM Revision 1.9, June 1996

<u>Page</u>	<u>Change Description</u>
11-i	Removed page revision index. No longer are individual pages revised. The revision number for the index is assigned to the chapter.
11-1	Revised wording to address the tables and figures of chapter 11.
11-2	Revised radioiodine canister collection and analysis from weekly to biweekly. Continuous sampler operation requirement remains, only the frequency of exchange is affected.
11-3,4,5	Corrected the kilometer distances on numerous TLDs. The distances in miles remain unchanged, only the conversion to kilometers had been in error.
11-6	Revised drinking water to indicate composite samples are taken since installing a compositor at that sample location. Added footnote 5 to indicate grab samples to be taken if compositor is out of service. Also, corrected kilometer distance on BD-10. Miles to kilometer conversion had been in error.
11-7	Corrected kilometer distance on BD-10. Miles to kilometer conversion had been in error.
11-8	Expanded the number of required sample locations from two to four. Changed frequency for food products from three times a year to annually. Revised to annually due to short growing season and annual harvest associated with the area.
11-9	Added footnote 5.

Braidwood Station
Chapter 12 Change Summary
ODCM Revision 1.9, June 1996

<u>Page</u>	<u>Change Description</u>
12-ii	Removed page revision index. No longer are individual pages revised. The revision number for the index is assigned to the chapter.
12-iii	Updated page numbers.
12-iv	Updated page numbers.
12-1	Removed reference to chapter 9. Its contents are being relocated in Chapter 12.
12-7	Added to the footnote that the frequency notations do not apply to the REMP. The frequency notations for REMP are maintained as part of the sampling manual.
12-46 to 12-62	<p>Relocated the generic requirements for REMP from Chapter 9 to Chapter 12, with the following modifications:</p> <ul style="list-style-type: none">-Revised radioiodine canister collection and analysis from weekly to biweekly.-Added more food product sampling location requirements.-Revised food product sampling to annually.-Revised the "shall" to a "may" in footnote 8 of Table 12.5-1 so that dairy sampling outside the requirements of the program may be conducted.-Added footnote 6 to Table 12.5-3 at the request of the contractor laboratory to clarify that the I-131 LLD applies only when the analysis is specific for that radionuclide.
Page 12-64	Added statement to allow for the Commission to receive updated pages for controlled copies of the ODCM in lieu of submitting an entire copy of the ODCM.

Braidwood Station
Appendix F Change Summary
ODCM Revision 1.9, June 1996

<u>Page</u>	<u>Change Description</u>
F-1	Removed page revision index. No longer are individual pages revised. The revision number for the index is assigned to the chapter.
F-2	Revised the drinking water river flow factor FW. An inaccurate flow factor was discovered to have been used since January, 1994.
F-4	Revised nearest resident ranges based on the 1995 land use census.
F-8	Revised nearest meat animal data based on the 1995 land use census.

Braidwood Station
ODCM Change Summary
Chapter 12, Revision 2, December 1996

Change Summary:

Page	Change Description
12-41	Inserted specific dose and dose equivalent values for Site Boundary limits. The new wording is consistent with Generic Letter 89-01.
12-42	Specified the exact fraction of the dose design objectives identified by the limits.

Braidwood Station
Change Summary
Appendix F, Revision 2, December 1996

<u>Page</u>	<u>Change Description</u>
F-i	Updated Revision Index to reflect revision 2.
F-2	Revised river flow factor for fish, F^f , from 5630 to 3950 cfs. This is an updated river flow value for the Kankakee River.
F-4	Updated footnotes to reflect 1996 Teledyne survey.
F-8	Updated nearest meat animal radius and D/Q values for directions NE and W based on 1996 annual census data.

Byron Station
Chapter 11 Change Summary
ODCM Revision 1.3, March 1996

<u>Page</u>	<u>Change Description</u>
11-i	Changed page revision numbers to 1.3
11-iv	Updated page numbers
11-1	Deleted reference to tables that no longer exist
11-2,3	Re-grouped airborne sample locations into near field, far field, and control locations. Deleted airborne locations BY-2, BY-3, BY-5, and BY-7, no longer required per new Chapter 12 requirements.
11-3	Added Inner ring TLD locations 101-1, 101-2 to comply with new requirements of Chapter 12.
11-5	Re-worded section 2.c to be consistent with new Chapter 12 wording.
11-6	Re-grouped Waterborne sample locations to comply with new Chapter 12 requirements. Deleted the following sample locations no longer necessary per Chapter 12: BY-9 Surface Water BY-13 Surface Water BY-13 Sediment BY-29 Sediment
11-7	Re-grouped Ingestion sample locations to comply with new Chapter 12 requirements. Deleted/Added the following sample locations to comply with requirements of Chapter 12: Deleted BY-12 Fish Deleted BY-13 Fish Added BY-31 Fish Changed sampling frequency for milk from semimonthly to biweekly, May through October. Increased number of required food product samples to comply with Chapter 12. Removed food product sample locations to allow flexibility to obtain the sample based on availability, not location.
11-8	Deleted section 5, Land Use Census. This requirement is in Chapter 12.
11-9	Deleted table "NOTE" regarding deviations from sampling schedule. The information is now in Chapter 12. Added footnotes to clarify table information.
11-11	Updated Figure with new sample location requirements.
11-12	Updated Figure with new sample location requirements.
11-13	Updated Figure with new sample location requirements.

Byron Station
Chapter 12 Change Summary
ODCM Revision 1.3, March 1996

<u>Page</u>	<u>Change Description</u>
12-ii	Updated page revision numbers to 1.3.
12-iii	Updated page numbers.
12-iv	Updated page numbers.
12-2	Added definitions for "Frequency" and "Occupational Dose". Revised "Member of the Public" definition to revised 10CFR20 definition.
12-5	Added the words to the Notation identifiers. Added footnote to clarify table requirements.
12-14	Revised Action 37 to allow releases to continue if real time monitoring is established. Revised Action 39 to indicate that sample analyses shall meet the LLD's as specified in Table 12.4-1.
12-29	Revised gross alpha composite of particulate samples from monthly to quarterly.
12-43	Revised Table 12.5-1 to implement requirements of UREMP (located in Chapter 9 of the ODCM). Revised vegetation sampling to annually.
12-48	Revised footnotes to clarify table requirements.
12-49	Added footnote (2) to clarify reporting requirements.
12-50	Revised table to conform to standardized LLD's located in Chapter 9.
12-52	Revised footnotes to clarify table requirements.
12-53	Revised Land Use Census section to conform to standardized requirements located in Chapter 9.
12-54	Removed requirement for the program to be approved by the NRC. NRC (EPA) no longer sponsoring or approving programs.
12-55	Revised wording to conform to standardized requirements located in Chapter 9.
12-56	Revised wording to conform to standardized requirements located in Chapter 9.
12-57	Removed statement referring to report requirements following initial criticality.
12-58	Added statement to indicate that the controlled copy documents retained by the Commission receive updated pages, not an entire ODCM for each update.

Byron Station
Appendix F Change Summary
ODCM Revision 1.3, March 1996

Page	Change Description
F-i	Updated page revision numbers to 1.3.
F-1	Added paragraph to Section F.1 to describe when table revisions are conducted. Updated Reference 1.
F-5	Updated Nearest Dairy Farm information with 1995 census data. Updated footnotes.
F-9	Updated Nearest Milk Cow and Nearest Meat Animal ranges and dose factors per 1995 census data.

Dresden Station
Chapter 10 Change Summary
ODCM Revision 1.6, April 1996

<u>Page</u>	<u>Change Description</u>
10-1	Updated FSAR Section number. Changed monitor name to SPING to be consistent with station terminology.
10-2	Updated FSAR Section numbers. Changed monitor name to SPING to be consistent with station terminology. Revised Section 10.1.2.2 from "on a high alarm" to "at a predetermined setpoint" for when the high range noble gas channel is bypassed since the action does not occur at high alarm, but at a level higher, prior to low range saturation. Revised Section 10.1.2.5 from "on high alarm" to "at trip setpoint" for when the monitor activates the internal timer since the trip setpoint is set at the high-high alarm and per Technical Specifications.
10-3	Updated FSAR Section numbers
10-4	Changed monitor name to SPING to be consistent with station terminology. Added $\mu\text{Ci}/\text{ft}^3$ as a unit for conversion factors.
10-5	Changed monitor name to SPING to be consistent with station terminology. Added $\mu\text{Ci}/\text{ft}^3$ as a unit for conversion factors. Updated design flowrates in Section 10.1.3.5 to reflect current station drawings. Also, revised section to indicate how total flowrates are determined and to indicate unit operation may affect stated flowrates. Added condor processing to Section 10.2.1.
10-6	Updated FSAR Section numbers. Changed "Units 2/3" to "Units 2 & 3". Removed the word "automatically" from Section 10.2.2.2 since it applies to only one of the two stated monitors. Revised wording of Section 10.2.2.3 to clarify service water effluent monitoring.
10-7	Added statement to description of DWC since also referred to as ECL.
10-8	Changed "Units 2/3" to "Units 2 & 3".
10-9	Changed "Units 2/3" to "Units 2 & 3".
10-12	Updated flowrates per station drawings.
10-14	Updated figure to reflect current systems and processes.

Dresden Station
Chapter 10 Change Summary
ODCM Revision 1.7, May 1996

<u>Page</u>	<u>Change Description</u>
10-i	Updated Index to Revision 1.7.
10-ii	Updated page numbers.
10-iii	Updated page numbers.
10-8	Removed dilution flow of 40,000; inserted factor F^d in place of default flow.
10-9	Removed dilution flow of 40,000; inserted factor F^d in place of default flow.
10-10	Revised wording of 10.2.3.6 to reference a measured flowrate versus assumed flowrate.
10-11	Deleted Table 10-1. Information no longer valid.

Dresden Station
Chapter 10 Change Summary
ODCM Revision 1.8, June 1996

<u>Page</u>	<u>Change Description</u>
10-i	Updated Index to Revision 1.8.
10-3	Revised setpoint for reactor building vent monitors. The previous setpoint of 3 mr/hr was no longer in the range that the monitor could see based on detector noise and background. The revised setpoint is 10 mr/hr.

Dresden Station
Chapter 12 Change Summary
ODCM Revision 1.2, June 1996

<u>Page</u>	<u>Change Description</u>
12-ii	Removed individual revision page and just put the revision number for the chapter on the page. No longer are individual pages revised.
12-iv	Revised page number for Section 12.6.2.3.
12-v	Added Table 12.1-2, Operational Modes, and updated page numbers. Last Table number corrected to 12.5-3.
12-1	Updated definition for Member of the Public and Mode. Deleted definition for Hot Standby. Added definitions for Frequency Notation and Occupational Dose.
12-2	Updated definitions for Operable, Rated Thermal Power, ODCM, Reactor Power Operation and Source Check. Deleted definitions for Operating, Operating Cycle, Reactor Vessel Pressure, Refueling Outage, Shutdown, and Surveillance Interval.
12-3	Revised Table to be consistent with Technical Specifications. Added footnote to clarify Table requirements and to specify that these notations do not apply to REMP. Frequencies for REMP are defined as part of the REMP Sampling Manual.
12-4	Created Table 12.1-2 to define Operational Modes (taken from Technical Specification Table 1-2).
12-12 to 12-14	Removed a footnote from the table notation page and added it to each page. Added Offgas Radiation Activity Monitor and its associated footnotes and table notation (Action 29).
12-15 to 12-17	Removed a footnote from the table notation page and added it to each page. Added Offgas Radiation Activity Monitor and its associated footnote.
12-19	Clarified wording for the applicability of 10CFR20 limits as they pertain to noble gases vs non-noble gases.
12-20	Updated dose values to reflect a 2% fraction of 10CFR50, Appendix I limits. Added a footnote to reference the source of the numbers.
12-24	Removed footnote 5 from "(Gamma Emitters)" statement. Footnote is not applicable. Removed reference to "(gamma emitters)" in the quarterly service water releases section. It is not applicable. In footnote 7 in Unit 1 section, added statement that if no additions to a tank have been made since the last sample, the tank need not be sampled until the next addition. Added footnote 8 in the Unit 1 service water section which states that sampling and analyses required only when system is operating.
12-25	Removed duplicate table heading between table sections B and C on the Units 2 & 3 page. Removed footnote 5 from "(Gamma Emitters)" statement. Footnote is not applicable.

<u>Page</u>	<u>Change Description</u>
12-26	Delinieated requirements of footnote (7) by unit. Added footnote 8.
12-30	Added Section 12.4.A.2.5 to implement a Technical Specification program requirement.
12-31	Added Section 12.4.A.3.5 to implement a Technical Specification program requirement.
12-32	Revised Section 12.4.A.4.5 to be consistent with Technical Specification 3.8.1. Added Technical Specification number for reference.
12-33	Clarified wording on dose projection requirements in Sections 12.4.B.2 and 12.4.B.3.
12-34	Revised Section 12.4.B.5 to be consistent with Technical Specification 4.8.1. Added Technical Specification number for reference.
12-35	Removed references to footnote 7. Footnote 7 did not exist as a table footnote.
12-36	Removed MVRS HVAC Exhaust Sampler requirements. This equipment no longer exists. Removed the words "(I-131 and others)" that followed "Principal Gamma Emitters" in Section B. This information is inferred within footnote 5.
12-41	Removed the requirement for an interlaboratory comparison program to be approved by the NRC. The NRC is no longer approving the program.
12-44	Corrected the units for milk from "pCi/l" to "pCi/l".
12-45	Corrected units for Milk/Public Water from "pCi/l" to "pCi/l".
12-48	Changed the words "...the interlaboratory comparison program.." to "...an interlaboratory comparison program..." to remove the inference to a specific program.
12-49	Added date requirements for submission of the Radioactive Effluent Release Report and the Annual Radiological Environmental Operating Report.
12-51	Revised Section references in 12.6.3.1 to address ODCM section references in place of Tech Spec section references. Revised Technical Specification section number in Section 12.6.3.2.(1).
12-52	Added statement to allow for the Commission to receive updated pages for controlled copies of the ODCM in lieu of submitting an entire copy of the ODCM.

LaSalle Station
Chapter 10 Change Summary
ODCM Revision 1.8, November 1996

Revision Index:	Removed page revision index. No longer are individual pages revised. The revision index revision number is assigned to the chapter.
Table of Contents:	Updated page numbers Added section 10.2.1.2
Page 10-1	Revised wording concerning oil burning to describe the general characteristics of the effluent pathway.
Page 10-4	Removed the application of the pre-treatment monitor setpoint set at or below one-half of the post-treatment monitor. The post-treatment monitor setpoint already has the conservatism factor in its equation. Removed last sentence in the description of Q_{TS} . This information is reflected in the general setpoint description.
Page 10-5	Added statement that the post-treatment monitor setpoint is set using the more conservative value from equations 10-3 and 10-4. This reflects current setpoint practice and is conservative. Removed description for efficiency. The efficiency is a given value associated with a monitor, no further information is necessary.
Page 10-6	Added statement for vent stack and standby gas treatment monitors that the setpoint is set using the more conservative value from equations 10-3 and 10-4. This reflects current setpoint practice and is conservative.
Page 10-7	Removed specific sources referenced in 10.1.3.4 for vent stack and standby gas treatment monitors and added statement reflecting current practices in obtaining conversion factors. This will also support improvements to calibration procedures that are planned.
Page 10-8	Added Cooling Pond Blowdown to the general system description for liquid releases to link its existence to sampling and analyses requirements in Chapter 12. Revised Section 10.2.2.1 to indicate the automatic closure occurs on hi-hi alarm, which is consistent with current plant operation.

Page 10-10

Added a description to the 10 multiplier for additional information.

Page 10-11

Added a description to the 10 multiplier for additional information. Added a statement to Section 10.2.3.6 to indicate current practice that the calibration constant is also based on an energy response curve.

Figure 10-4

Revised figure to represent current station practices with solid radwaste

LaSalle Station
Chapter 11 Change Summary
ODCM Revision 1.8, November 996

Revision Index:	Removed page revision index. No longer are individual pages revised. The revision index revision number is assigned to the chapter.
Page 11-1	Revised wording to address information in Chapter 11 and removed references to Chapter 9. Chapter 9 is to be deleted.
Page 11-2	<p>Revised requirement for charcoal cartridge collection and analysis to biweekly. A longer collection time makes it easier to meet required LLD's. Also, the required time between sample collection and analyses remains unchanged, and contractor counting procedures integrate the activity from the analyses back to the time of sampling, therefore maintaining the integrity of the analyses.</p> <p>Deleted air sampler L-12 and replaced it with L-4. It was determined by a scaled measurement on a map, that L-12 is located approximately 9 miles from site which does not qualify it for an indicator location. At the same time, L-4 was determined to be approximately 3.2 miles from site which qualifies it for a far field indicator.</p>
Page 11-3	Added "on each TLD" to the frequency of analysis column for TLD's.
Page 11-4	Revised distances for TLD's 204-1 and 204-2, whose distances were determined by a scaled measurement on a map. Removed asterisk on TLD locations 211-1 and 211-2 which indicated the TLD's were placed in the 4th qtr of 1995. Footnote no longer applicable.
Page 11-6	Removed the word "and" that was inappropriately placed between the words "tritium" and "analysis" for surface water and control analysis.
Page 11-7	<p>Removed the word "or" that was inappropriately placed between "October" and "monthly" in the collection frequency column for milk.</p> <p>Expanded food product sampling requirements to include samples from each of the 4 major quadrants around the station. Revised collection frequency to annually due to the short growing period and single harvests associated with the area.</p>
Figure 11-1	Deleted location L-12, added location L-4
Figure 11-3	Moved water sample locator 21 into the river.

LaSalle Station
Chapter 12 Change Summary
ODCM Revision 1.8, November 1996

Revision Index:	Removed page revision index. No longer are individual pages revised. The revision index revision number is assigned to the chapter.
Table of Contents:	Updated page numbers. Added three new tables, 12.5-1, 12.5-2, 12.5-3. These tables were originally in Chapter 9.
Page 12-1	Removed reference to Chapter 9. Information relocated to chapter 12.
Page 12-4	Corrected a typographical error in definition 12.1.8.
Page 12-7	Added information to the footnote that the table frequencies do not apply to REMP. Added footnote for notation "R" that upon Tech. Spec. approval, the notation frequency will change to once per 24 months.
Page 12-9	Added footnote for cooling pond blowdown pipe. Added unit specific designator for RHR.
Page 12-10	Corrected Section and Table references. Added specific analyses requirements for Action 101.
Page 12-11	Broke instrumentation out by Line and Unit. Renamed River Discharge Blowdown pipe to terminology used by station.
Page 12-14	Inserted double asterisk in section 1. Was originally omitted. Added additional EPN numbers to 2.d and 4.e to indicate another available data point. Corrected an EPN in 2.e.
Page 12-15	Added requirement for WRGM samples to be analyzed at the LLD's listed in Table 12.4.1-1. Modified the wording of "***" footnote to require monitoring only when effluents are being released instead of during equipment operation since equipment can be operated without a flowpath to the environment. Re-worded Action 110 to incorporate the NOTE from the end of the page into this Action number to which it applies.
Page 12-16	Added the "***" footnote to indicate a new requirement.

Page 12-17	Added the "***" footnote to require monitoring only when effluents are being released instead of during equipment operation since equipment can be operated without a flowpath to the environment.
Page 12-21	<p>Added weekly frequency to continuous release composite for I-131 and principal gamma emitters</p> <p>Indicated that cooling pond blowdown is the system that applies to the continuous release category.</p> <p>Changed Fe-55 LLD from 1E-5 to 1E-6 to remain consistent with the other nuclear stations.</p>
Page 12-22,23	Added an alternate LLD philosophy to allow computer generated LLD's to be used.
Page 12-24	Removed the word "continuously" from footnote "c" since the compositor pulls a periodic sample of the effluent stream. Removed reference to "mixing in accordance with the ODCM" from footnote D. The ODCM does not address mixing methods.
Page 12-27	Removed the word "or" to lessen confusion on the actual requirements for liquid dose projections.
Page 12-28	Added wording to 12.4.1.B.1 so it is consistent with the wording of 12.4.1.B.2.
Page 12-30	Removed an incorrect LLD listed for H-3. Revised frequency for H-3 sampling in section B to weekly since spent fuel is normally always in the fuel pool. Removed reference to Xe-133 equivalent under the LLD for Noble Gas Monitor. Reworded Section D to clarify requirements.
Page 12-31	Added sampling and analyses requirements for the new oil burning unit.
Page 12-32,33	Added an alternate LLD philosophy to allow computer generated LLD's to be used.
Page 12-34	Expanded footnote to include a monthly frequency for sampling and analysis of H-3 when spent fuel not in the fuel pool.
Page 12-41	Added direct radiation to dose calculation surveillance requirement to address skyshine calculations.

Moved REMP requirements from chapter 9 to section 12.5 and 12.6.1. Made minor modification to the REMP program as it existed in Chapter 9:

Revised ranges to include all sampling locations.

Expanded food product sampling requirements to include samples from each of the 4 major quadrants around the station. Revised collection frequency to annually due to the short growing period and single harvests associated with the area.

Revised requirement for charcoal cartridge collection and analysis to biweekly. A longer collection time makes it easier to meet required LLD's. Also, the required time between sample collection and analyses remains unchanged, and contractor counting procedures integrate the activity from the analyses back to the time of sampling, therefore maintaining the integrity of the analyses.

Quad Cities Station
Chapter 10 Change Summary
ODCM Revision 1.8, June 1996

<u>Page</u>	<u>Change Description</u>
10-i	Changed page revision numbers to 1.8.
10-ii	Updated page numbers.
10-iii	Updated page numbers.
10-6	Replaced "10CFR20" with "RETS" since the Radiological Environmental Technical Standards (RETS) contain the requirements and surveillances necessary to meet 10CFR20 limits.
10-7	Added a multiplier to the DWC which will be implemented upon Technical Specification approval. Added missing parentheses in equations 10-3 and 10-4.
10-8	Added a multiplier to the DWC which will be implemented upon Technical Specification approval. Replaced "10CFR20" with "RETS".

Quad Cities Station
Chapter 11 Change Summary
ODCM Revision 1.8, June 1996

<u>Page</u>	<u>Change Description</u>
11-i	Changed page revision numbers to 1.8
11-iv	Updated page numbers
11-1	Added verbage explaining the uniform radiological environmental monitoring program (UREMP) implementation.
11-3	Changed name of air sampler Q-14. Updated various TLD locations (did not move any TLDs, but updated their locations based on new mapping information).
11-4,5	Updated various TLD locations.
11-6	Deleted a dairy that went out of business. Added location of the fish sample.
11-8	Updated footnote "e" to reflect new department. Removed reference to three dairies being listed for administrative purposes in footnote "i".
11-9 to 15	<p>New table reflecting implementation of UREMP (voluntary implementation following Technical Specification approval). Changes from original Table 11-1 as follows:</p> <ul style="list-style-type: none"> -Deleted air sample stations Q-08, Q-09, Q-10, Q-11, Q-12, Q-14, Q-15. No longer needed based on UREMP requirements. -Identified Q-04, Q-05, and Q-06 to be moved to comply with UREMP location requirements. -Public water locations deleted; there are public water intakes within 6.2 miles of the station (added surface water locations in lieu of public water). -Cooling water locations deleted; not required by UREMP. Upstream and Downstream surface water is sampled from the river. -Added two surface water sample locations (indicator and control). -Added two well water sample locations. -Deleted a shoreline sediment sample; one sample only required by UREMP. -Added an additional fish sample location. -Added vegetation sampling requirements. -Removed land use census from table. It is contained in its own section in Chapter 9. -Updated footnotes to support new table requirements.
11-8	Added door-to-door survey or other reliable method to Type and Frequency of Analysis column.

Quad Cities Station
Chapter 12 Change Summary
ODCM Revision 1.8, June 1996

<u>Page</u>	<u>Change Description</u>
12-ii	Updated page revision numbers to 1.8.
12-iii	Updated page numbers.
12-iv	Updated page numbers.
12-1	Modified verbage to describe contents of Chapter 12.
12-2,3	Added a compliance matrix to cross reference the source of the different requirements found in the chapter.
12-4	Added definitions for "Frequency" and "Occupational Dose". Revised "Member of the Public" definition to revised 10CFR20 definition.
12-6	Added definition for site boundary.
12-7	Added definition for unrestricted area. Modified numbering to account for new definition.
12-8	Added frequency notation table to define chapter notations.
12-9	Updated section reference. Removed reference to a semi-annaul effluent report.
12-20	Updated the Table reference in Notation a.
12-23	Added Actions e. and f. They were left out of the previous revision.
12-31	Added Applicability and Action 2. Left out of previous revision.
12-37 to 43	Added note to beginning of each section referring to a new section when UREMP is implemented.
12-46 to 48	Added sections to account for when UREMP is implemented.
12-49, 50	Added additional standardized verbage as to the contents and requirements of the Radioactive Effluent Pelease Report.
12-52	Added section to account for when UREMP is implemented.
12-53	Removed reference to a semi-annual effluent report; will be moving to annual effluent reporting. Added statement to allow for the Commisssion to receive updated pages for cor.trolled copies of the ODCM in lieu of submitting an entire copy of the ODCM.

Quad Cities Station
Appendix F Change Summary
ODCM Revision 1.8, June 1996

<u>Page</u>	<u>Change Description</u>
F-i	Updated page revision numbers to 1.8.
F-1	Updated Reference 1 and 2.
F-4	Revised restricted area boundary numbers. Updated nearest resident and dairy farm numbers with 1995 census data. Updated footnotes.
F-7	Updated table to include restricted area ranges.
F-8	Updated Nearest Meat Animal ranges and dose factors based on land use census information
F-24 to 38	Updated table to with restricted area ranges.
F-39	Added M_h (site specific multiplication factor for hydrogen addition) and footnote to this table. Revised occupancy hours and occupancy factor columns based on a 1994 occupancy factor study. Revised distance column based on distances measured from station maps.

Zion Station
Chapter 10 Change Summary
ODCM Revision 1.7, April 1996

<u>Page</u>	<u>Change Description</u>
10-i	Removed the page index and replaced it with a chapter index. Individual pages no longer being revised.
10-ii	Eliminated Sections 10.1.2.6 and 10.1.2.7 due to the decommissioning of radiation monitors 0RT-PR22 (Service Building Ventilation Monitor) and 0RT-PR18A&B (Miscellaneous Ventilation Monitors). Updated page numbers.
10-iii	Updated page numbers.
10-3	Deleted Sections 10.1.2.6 and 10.1.2.7 due to the decommissioning of monitors 0RT-PR22 and 0RT-PR18A&B.
10-5	Deleted reference to the design basis flow rate through monitor 0RT-PR22 from 10.1.3.5.
10-13	Deleted monitors 0RT-PR22 and 0RT-PR18A&B from Figure 10-1.
10-18	Deleted reference to monitors 0RT-PR22 and 0RT-PR18A&B from Figure 10-5.

Zion Station
Chapter 12 Change Summary
ODCM Revision April 1996

<u>Page</u>	<u>Change Description</u>
12-11	Deleted section 4.A.3, 4.C.2, 5.A, and 5.B from Table 12.2-3 due to the decommissioning of radiation monitors 0RT-PR22 and 0RT-PR36 (Service Building Ventilation Monitors) and 0RT-PR18A&B (Miscellaneous Ventilation Monitors).
12-16	Deleted sections 4.A.3, 4.C.2, 5.A, and 5.B from Table 12.2-4 due to decommissioning of radiation monitors 0RT-PR22 and 0RT-PR36 (Service Building Ventilation Monitors) and 0RT-PR18A&B (Miscellaneous Ventilation Monitors).
12-31	Deleted section C.3 and C.4 from Table 12.4.-1 due to the decommissioning of radiation monitors 0RT-PR22 (Service Building Ventilation Monitor) and 0RT-PR18A&B (Miscellaneous Ventilation Monitors).

Zion Station
Chapter 11, Change Summary
ODCM Revision 1.1, September 1996

<u>Page</u>	<u>Item</u>
Page 11-i	Removed revision number by page and replaced it with a chapter revision number page.
Page 11-iii	Deleted tables 11-2 and 11-3. Tables are now part of Chapter 12 (Tables 12.5-2 and 12.5-3).
Page 11-iii	Corrected page numbers.
Page 11-1	Simplified introductory wording.
Table 11-1	<p>Implemented UREMP. This includes the following changes:</p> <ul style="list-style-type: none">-Grouped air samplers into near field, far field, and control.<ul style="list-style-type: none">-Deleted air samplers Z-04, Z-07, Z-10, Z-12, and Z-13. These samplers not needed to meet new requirements.-Moved air sampler Z-06 from a far field sampler to a near field sampler based on its location; it now meets the definition of a near field sampler.-Added new TLD categories: Other and Control. Added TLD's 101-1,2 and 102-1,2.-Grouped Waterborne pathway into drinking water, sediment, and control.<ul style="list-style-type: none">-Deleted Drinking water samples Z-17 and Z-19. They are no longer necessary based on UREMP. The two closest drinking water locations (north/south) being sampled as well as two other locations (north/south) beyond 6.2 miles.-Added Control category-Deleted the one fish locations. Added two new locations based on new program requirements.-Deleted all dairy sampling since there are no indicator dairies (dairies within 6.2 miles of the station).-Added annual requirement for vegetation sampling.
Page 11-6	Revised footnotes to clarify Table 11-1 requirements.
Page 11-7	Revised locations for UREMP implementation.
Page 11-8	Revised locations for UREMP implementation.
Page 11-9	Revised locations for UREMP implementation.

Zion Station
Chapter 12 Change Summary
ODCM Revision 1.7, September 1996

<u>Page</u>	<u>Item</u>
12-i	Removed part of SPECIAL NOTE that is no longer applicable.
12-ii	Removed page index. Individual pages no longer updated.
12-iii	Updated page numbers and section titles to be consistent with text.
12-iv	Updated page numbers and table titles to be consistent with text.
12-1	Added definition for member of the public.
12-2	Added definition for occupational dose.
12-3	Added definitions for ventilation exhaust treatment system and waste gas holdup system.
12-4	Removed reference to a 3.25 factor applied to combined intervals. This factor is not addressed in Tech. Spec.'s. Revised frequency for shiftly to once per 12 hours.
12-8	Removed requirement for a source check to be done at the time of channel calibration. Channel calibration inherently involves response to a source.
12-10	Deleted 2.C, flow rate monitor, and revised applicable modes under section 2, air ejector off-gas. These items no longer applicable due to a station modification to the system.
12-11	Incorporated a station onsite review that addressed the removal of OPR-18 from section 4, this monitor is no longer used. Added OPR-12 to section 4.B and 4.C. Deleted service building ventilation section. Service building ventilation is monitored via the vent stack (final release point).
12-13	Added Action 15 to address monitor OPR-12B, added to Table 12.2-3.
12-14	Deleted 2.C, flow rate monitor. This item no longer applicable due to a station modification.
12-16	Incorporated a station onsite review that addressed removal of OPR-18 from section 4, this monitor is no longer used. Added OPR-12 to section 4.B and 4.C. Deleted service building ventilation section. Service building ventilation is monitored via the vent stack (final release point).
12-17	Corrected two typing errors for channel check items indicated as N/A, originally typed ND/A.
12-19	Revised wording of 12.3.1.A.1 to clarify requirements. Revised flowrate in 12.3.1.A.2 to 200,000 to be more consistent with station procedures. Revised 12.3.1.B.4 to indicate the bases behind the 200,000 flow value.
12-20	Reworded bases to update references. Removed statement on bases to Table 12.3-1. The base behind the values on the table are in a footnote on the table itself.

<u>Page</u>	<u>Item</u>
12-25	Reworded 12.3.2.B for consistency with other similar surveillance requirements.
12-27	Revised values in 12.3.3.A to reflect a 2% fraction of Appendix I limits. Reworded 12.3.3.B for consistency with other similar surveillance requirements. Added the 2% fraction to 12.3.3.C to comply directly with Tech Specs; original wording stated "a suitable fraction."
12-28	Clarified wording in 12.4.1.A; added "to areas at or beyond the SITE BOUNDARY", and added "to any organ" to 12.4.1.A.1. Reworded 12.4.1.C to address SITE BOUNDARY as the area for dose limit applicability. Revised last sentence to indicate that Zion is considered a ground level release. had incorrectly stated a vent release which was in contradiction to other sections of the ODCM.
12-29	Removed particulate, iodine, and tritium sampling and analysis requirements from Section A and B. These items are continuously sampled for and analyzed for quantification from the vent stack. Revised Section C to remove those release paths that are inputs to the vent stack from the sampling and analysis program. Effluent sampling, analysis, and quantification to be performed from the vent stack (final effluent release point).
12-30	Revised footnote c to apply to the vent stack. Added footnote f to refer to Table 12.2-3 which lists required actions to be taken if noble gas monitoring instrumentation is not in service.
12-31	Added the SITE BOUNDARY criteria to 12.4.2.A. Reworded 12.4.2.B to be consistent with the wording of other similar surveillance requirements.
12-33	Revised heading to address specifics of this sections. Revised 12.4.3.A so that the wording is consistent with Tech Spec wording. Revised 12.4.3.B such that the wording is consistent with the requirements of this section and with other similar surveillance requirements.
12-34	Revised the boundary to which dose is calculated to be consistent with ODCM methodology.
12-35	Added new section to comply with Tech Spec requirements.
12-36	Revised wording to conform to a uniform company program for REMP.
12-37	Revised wording to conform to a uniform company program. Expanded upon the bases.
12-38	Added on interpretation to explain the generic wording used in Table 12.5-1 for waterborne pathways and its applicability to Zion and Lake Michigan.
12-39-43	<p>New table and footnotes that correspond to a uniform company program for REMP. The uniform program was based on Generic Letter 89-01. The new program delineates new categories for samples, indicator and control. Additional differences from the current program requirements include:</p> <p>Airborne Radioiodine and Particulates: Four less air sample locations. Removal of requirement for air sampler train test and maintenance weekly. This is performed by procedure following filter replacement.</p> <p>Direct Radiation: Two less TLD locations required. For Zion specifically, added footnote to indicate the number of locations is not absolute and can be modified based on geographic limitations.</p> <p>Waterborne: Put distance limitations on public drinking water sampling. Added control sample requirements.</p>

<u>Page</u>	<u>Item</u>
12-39-43 (cont'd)	Expanded generic requirements for milk sampling. Expanded requirements for fish sampling. Revised vegetation sampling to annually due to an annual harvest season associated with the midwest. Expanded footnotes to explain and/or clarify information on the Table.
12-44	Re-formatted table. Added new footnote for clarification.
12-45	Expanded LLD table in some categories even if analysis not required due to this being a standardized table; lowered the LLD for fish and milk based on standardizing LLDs.
12-46-47	New notes to clarify information from Table 12.5-3.
12-48	Applied standardized wording to section 12.5.2.
12-49	Removed references to a program approved by the Commission since the Commission discontinued its involvement in supplying an approved program. Reworded some areas to standardized wording.
12-50-51	Revised section 12.6.1 and 12.6.2 to standardized reporting criteria. These reporting criteria meet or exceed existing requirements of these sections.
12-52	Added an Improved Tech Spec reference.
12-53	Added a new section for reporting of major changes to liquid and gaseous radwaste treatment systems to maintain consistency among all sites.

Zion Station
Chapter 10 Change Summary
ODCM Revision 1.8, October 1996

<u>Page</u>	<u>Change Description</u>
10-1	Changed revision number.
10-1	Deleted statement at the beginning of the third paragraph, describing rad monitors 1(2)RIA-PR49 to describe automatic actions. Change reflects change incorporated in UFSAR Section 11.5.2.1.2, AOP 5.1, and drawings 22E-1(2)-5108 and 22E-1(2)-4840-PR47.
10-5	Replaced rad monitor 0RT-PR10A/B which has been abandoned, with rad monitor 0RIA-PR10 under modification M22-0-91-023.

ATTACHMENT II

ComEd ODCM

Current as of December 31, 1996