

DTE ELECTRIC COMPANY

VERTICAL EXTENSION LANDFILL CLOSURE PLAN

MONROE POWER PLANT

PROJECT NO. 151630

REVISION 4
JULY 31, 2026

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List of Abbreviations

Abbreviation	Term/Phrase/Name
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
DTE	DTE Electric Company
EGLE	Michigan Department of Environment, Great Lakes, and Energy
EPA	Environmental Protection Agency
FAB	Fly Ash Basin
MAC	Michigan Administrative Code
Monroe	Monroe Power Plant
RCRA	Resource Conservation and Recovery Act
U.S.C.	United States Code
VEL	Vertical Extension Landfill

Index and Certification

DTE Electric Company
Vertical Extension Landfill Closure Plan
Project No. 151630

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Certification

I hereby certify, as a Professional Engineer in the state of Michigan, that the information in this document was assembled under my direct personal charge and meets the requirements of 40 CFR § 257.102. This report is not intended or represented to be suitable for reuse by the DTE Electric Company or others without specific verification or adaptation by the Engineer.



07/31/2026

Allyson Myers

Allyson Myers, P.E.
(Michigan License No. 6201312005)

Date: 7/31/2026

1.0 Introduction

On April 17, 2015, the Environmental Protection Agency (EPA) issued the final version of the federal Coal Combustion Residuals (CCR) Rule to regulate the disposal of coal combustion residual materials generated at coal-fired electric generating units. The rule is administered as part of the Resource Conservation and Recovery Act (RCRA, 42 United States Code [U.S.C.] §6901 et seq.), under Subtitle D. DTE Electric Company (DTE) is subject to the CCR Rule. As such, DTE must develop a Closure Plan for the CCR units at Monroe Power Plant (Monroe) per 40 Code of Federal Regulations (CFR) §257.102. This document serves as DTE's revised Closure Plan for the Vertical Extension Landfill (VEL).

According to §257.102(b)(1), the Closure Plan must contain the following:

- A description of how the CCR unit will be closed.
 - o For in-place closure: A description of the final cover system, the methods for installing the final cover system, and the methods for achieving compliance with the standards outlined in §257.102(d).
 - o For closure by removal: A description of the procedures to remove the CCR and decontaminate the CCR unit in accordance with §257.102(c).
- An estimate of the maximum amount of material ever stored in the CCR unit over its active life.
- An estimate of the largest area of the CCR unit ever requiring a final cover as required by §257.102(d) at any time during the CCR unit's active life.
- A schedule for completing closure activities, including the anticipated year of closure and major milestones for permitting and construction activities.

The seal on this report certifies that this document meets the requirements of 40 CFR §257.102. This closure plan is in addition to, not in place of, any other applicable site permits, environmental standards, or work safety practices.

Because the VEL is being closed by removal of CCR, a Post-Closure Plan is not required per 40 CFR §257.104(b).

2.0 Details of Closure

2.1 Site Description

DTE owns and operates Monroe Power Plant, a four-unit, 3,300-megawatt coal-fired facility located in Monroe, Michigan. This CCR closure plan outlines the plan to close the VEL by removing CCR. Note, this document is a revision to the Closure Plan which was last revised by Burns & McDonnell in October of 2023 (Revision 3). The VEL is approximately 79 acres and was constructed over existing CCR material and is positioned within the footprint of the Monroe Power Plant Fly Ash Basin.

2.1.1 CCR Inventory and Extent

The maximum storage capacity of the VEL was calculated to be 3,600,000 cubic yards. The design maximum fill elevation of the VEL is approximately 672 ft (NGVD29). Neither the maximum storage capacity nor maximum fill elevation for the VEL will be exceeded as part of the closure design. CCR material stored within the VEL will be removed to the underlying ash subgrade and consolidated within the FAB to achieve closure grades prior to installing the final cover system and closing the FAB in place.

2.2 Closure Method

Both the CCR Rule and Michigan Public Act 451, Part 115 Rules, allow for coal ash landfills to be closed through removal of CCR or by leaving CCR material in-place. Per the Part 115 rules, closure by removal is complete when either of the following requirements are met per Section 324.11519b(9):

- The owner or operator certifies compliance with the requirements of 40 CFR 257.102(c).
- The owner or operator certifies that testing confirms that constituent concentrations remaining in the coal ash impoundment or landfill unit and any concentrations of soil or groundwater affected by releases therefrom do not exceed the lesser of the applicable standards adopted by the department pursuant to section 20120a or the groundwater protection standards established pursuant to 40 CFR 257.95(h) and the department accepts the certification, or, if the constituent concentrations do exceed those standards, the department has approved a remedy consistent with R 299.4444 and R 299.4445 of the MAC.

The VEL will be closed by removal of CCR. Material will be removed from the VEL using standard earthmoving equipment and loaded into dump trucks to be hauled and placed within the FAB to support in-place closure of the FAB. CCR material will be removed to the underlying subgrade. A conceptual design drawing for closure of the VEL is provided in Appendix A. The VEL subgrade will be visually inspected by a professional engineer to confirm removal of CCR and liner materials placed above the CCR within the FAB.

2.3 Post-Closure Conditions

The bottom of CCR will be documented by survey. The underlying FAB will be re-graded and closed in place. Groundwater monitoring for the FAB will be conducted as part of the FAB post-closure maintenance activities.

2.4 Closure Schedule

According to §257.102 of the CCR Rule, closure of VEL must commence no later than 6 months following the date on which a closure event is triggered, or no later than 30 days following the last known receipt of CCR or non-CCR wastestream. Similarly, §324.11519b(5) requires the following:

The owner or operator of a coal ash landfill shall place landfill cover materials that are described in R 299.4304 of the MAC, over the entire surface of each portion of the final lift not more than 6 months after the final placement of coal ash within the landfill or landfill unit.

A notification of intent to initiate closure of the VEL was prepared on January 25, 2024, and placed in the facility's CCR Operating Record and on DTE's CCR public website. Pre-closure construction activities, including closure design and permitting, are complete and construction preparations are underway with the contractor mobilizing in Q3 of 2026. The closure of both the VEL and FAB will be conducted in parallel, and each unit's closure process is dependent on the activities to occur in the other unit. Closure activities for the FAB will include the removal of bulk free water (unwatering), dewatering of CCR pore water, grading of CCR and soil, placement of the final cover system, and establishing the stormwater drainage infrastructure. The VEL is expected to be closed by removal of CCR at an appropriate time during the overall project timeline as one of the earlier/initial tasks.

A Closure Timeline Variance Request was prepared per Michigan Administrative Code R. 229.4108(4)(j) for the closure time period defined by R. 299.4317(1). This code requires that the coal ash facility be completely covered within six months after the final placement of coal ash under Part 115 of R 299.4317(1) for Type III Landfills. DTE intends to close the Vertical Extension Landfill (VEL), a Type III Coal Ash Landfill, by removal. DTE received the variance from R 299.4317(1) of Part 115 with the issuance of the February 16, 2024, operating license.

The estimated closure schedule is as indicated in Table 2-1.

Table 2-1: Closure Schedule

Activity	Schedule
Submit permit application to EGLE	Q4 2023
Date of last known receipt of CCR or non-CCR wastestream	Q4 2023
Prepare notification of intent to close FAB and VEL	Q1 2024
Complete dewatering pilot study for FAB closure	Q2-Q3 2024
Issue closure construction documents for bid	Q4 2024
Install Owner construction facilities and site security improvements	Q1 – Q4 2025
Closure contract negotiations	Q1 2025 – Q2 2026
Closure contractor mobilizes to site	Q3 2026
Removal of CCR material	Q3 2026 – Q2 2027
Target to complete closure	Q2 2027

2.4.1 Closure Completion

For the purposes of this Closure Plan, closure of the VEL is considered complete when CCR has been removed from the unit in accordance with 40 CFR §257.102(c), and the applicable construction completion documentation is finalized.

Within 30 days of completion of closure of the VEL, DTE must prepare a notification of closure of the VEL and place it in the facility's CCR Operating Record and on DTE's CCR public website. This notification shall include certification by a qualified professional engineer in the State of Michigan verifying that closure has been completed in accordance with this Closure Plan and the requirements of §257.102.

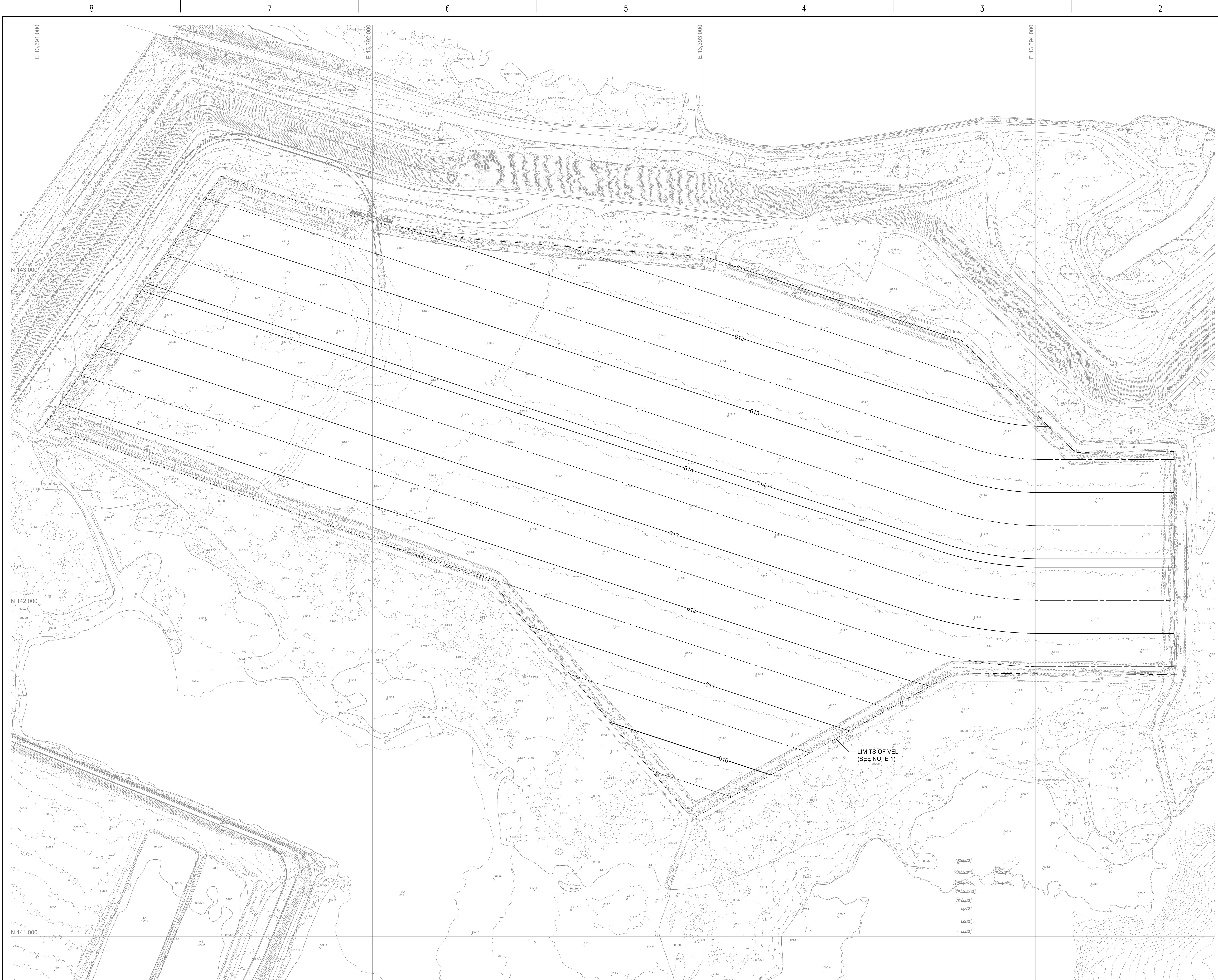
3.0 Revisions and Amendments

The initial Closure Plan for the VEL was placed in the CCR Operating Record in October 2016 (Revision 0) and was subsequently revised. This update replaces the latest revision to the Closure Plan (October 2023). If the Closure Plan is further revised, the written Closure Plan will be amended no later than 30 days following the triggering event. Additionally, the written Closure Plan will be amended at least 60 days prior to a planned change in the operation of the VEL, or no later than 60 days after an unanticipated event. The initial Closure Plan and any amendment will be certified by a qualified professional engineer in the State of Michigan for meeting the requirements of §257.102 of the CCR Rule. All amendments and revisions must be placed on the CCR public website within 30 days following placement in the facility's CCR Operating Record. A record of revisions made to this document is included in Section 4.0 of this document.

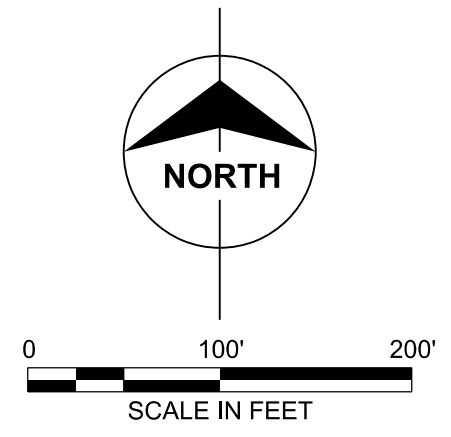
4.0 Record of Revisions and Updates

Revision Number	Date	Revisions Made	By Whom
0	October 2016	Initial Issue	AECOM
1	April 2019	Updated closure schedule	AECOM
2	March 2023	Provided additional details of the final cover system	AECOM
3	October 2023	Revised closure method	Burns & McDonnell
4	July 2026	Revised schedule	Burns & McDonnell

APPENDIX A – CONCEPTUAL CLOSURE DESIGN



- NOTES:
1. REMOVE MATERIAL WITHIN THE LIMITS OF THE VEL TO THE DESIGN SUBGRADE ELEVATION (I.E., TO UNDERLYING SLUICED ASH) AS INDICATED AND AS SHOWN ON REFERENCE DWG FIGURE 400-1. MATERIAL REMOVAL GRADE SHALL BE DOCUMENTED BY SURVEY AND APPROVED BY OWNER IN WRITING PRIOR TO COMPLETING FINISH GRADING WITHIN THE VEL FOOTPRINT.



6C695H-356
LATEST REVISION "D"

6					
5					
4					
3	06OCT23	ISSUED FOR PERMITTING	ENR	AMM	
2	18AUG23	ISSUED FOR 60% REVIEW	ENR	AMM	
1	30JUN23	ISSUED FOR 30% REVIEW	ENR	AMM	
NO.	DATE	ISSUED FOR	DISPLN/RSP	ENC	PRJ ENC
PROJECT ENGINEER:					APPROVALS
PRECONSTRUCTION REVISION BLOCK - REV. D					

Vendor:
BURNS & MCDONNELL
DTE ELECTRIC COMPANY

2111 Woodward Avenue, Suite 202
Detroit, MI 48226
Burns & McDonnell Michigan, Inc.

PRELIMINARY - NOT FOR CONSTRUCTION

THIS IS A CAD PRODUCED DRAWING.
ANY CHANGES OR REVISIONS TO
THIS DRAWING MUST BE COMPLETED
USING THE CAD SYSTEM

J	I	H	G	F	E	D	C	B	A
PROJ. ENG.	PROJ. MGR.	PROJ. ENG.	PROJ. MGR.	PROJ. ENG.	PROJ. MGR.	PROJ. ENG.	PROJ. MGR.	PROJ. ENG.	PROJ. MGR.
MADE BY	DATE	MADE BY	DATE	MADE BY	DATE	MADE BY	DATE	MADE BY	DATE
CHK BY	DATE	CHK BY	DATE	CHK BY	DATE	CHK BY	DATE	CHK BY	DATE
MECH.	APPROVED BY	MECH.	APPROVED BY	MECH.	APPROVED BY	MECH.	APPROVED BY	MECH.	APPROVED BY

REVISION DESCRIPTION	DTE ELECTRIC APPROVALS	DATE	OTHER APPROVALS	DATE	DESIGNED BY	DATE	CHECKED BY	DATE	PROJECT ENGINEER	DATE	PROJECT MANAGER	DATE
	ENG. TECH. DRG.		VERIFY		A. MYERS	18MAY23	ARCH		J. RIDDER	18MAY23		
	ENG. PLANT		CIVIL				CIVIL					
	ENG. COMP		MECH				MECH					
			ELEC				ELEC					
			IAC				IAC					

TITLE		LOCATION NAME		UNIT NUMBER	
FLY ASH BASIN CLOSURE PROJECT VEL EXCAVATION PLAN		MONROE POWER PLANT		1	
ORIGINATING SOURCE		SCALE		USE DIMENSIONS	
BURNS & MCDONNELL MICHIGAN, INC.		AS SHOWN		ONLY	
DTE ELECTRIC COMPANY DRAWING NUMBER		6C695H-356		DO NOT SCALE	

