Delaware Regulation 1134

Emission Banking and Trading Program

Emission Reduction Credit Audit

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Air Quality

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List of Acronyms

AQ	Air Quality
CAA	Clean Air Act
CZA	Coastal Zone Act
DNREC	Department of Natural Resource and Environmental Control
EPA	Environmental Protection Agency
ERC	Emission Reduction Credit
FR	Federal Register
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NNSR	Non-attainment New Source Review
NOx	Nitrous Oxide
NSR	New Source Review
PPM	Parts Per Million
PSD	Prevention of Significant Air Quality Deterioration
RFP	Reasonable Further Progress
TPD	Ton Per Day
VOC	Volatile Organic Compound

1.0 BACKGROUND

Ground-level ozone, one of the principal components of "smog," is an air pollutant that harms human health and the environment. High levels of ozone can damage the respiratory system and cause breathing problems, throat irritation, coughing, chest pains, and greater susceptibility to respiratory infection. The Clean Air Act (CAA) requires Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants that are common in outdoor air, considered harmful to public health and the environment, and that come from numerous and diverse sources.

The NAAQS for ozone is currently set at 0.070 parts per million (ppm) (2015 8-hour ozone NAAQS), which is expected to provide protection of public health and environment [80 Federal Register (FR) 65292].[1] New Castle County of Delaware was designated nonattainment as a part of the Philadelphia-Wilmington-Atlantic City Marginal Nonattainment Area (NAA) under the 2015 8-hour ozone NAAQS.

The CAA requires new emission sources in non-attainment areas for ozone to offset Volatile Organic Compound (VOC) and Nitrogen Oxides (NOx) emissions, which are ozone precursors, depending on the non-attainment level for the area. The purpose for requiring offsetting emissions decreases is to allow an area to move towards attainment of the ozone NAAQS while still allowing for industrial growth.

This can be accomplished through the implementation of an emission banking and trading program, which provides incentives to make progress toward attainment of air quality standards. The 1990 CAA allows for the use of market-based approaches, including emission trading, to assist in attaining and maintaining the NAAQS, for all criteria pollutants. Emissions trading programs have two key components: a limit (or cap) on pollution, and tradable allowances equal to the limit that authorize allowance holders to emit a specific quantity (e.g., one ton) of the pollutant.

An emission reduction credit (ERC) is a credit earned by a company when it reduces its air emissions. ERCs are discrete quantities of actual emissions expressed in tons of pollutant reduced. ERCs are reductions in emissions in one place that can be used to compensate for (or offset) emission increases which occur in a non-attainment area. These reductions can be generated through the shutdown of individual pieces of equipment or entire facilities. These credits can then be sold by the companies that hold them, to offset new emissions sources.

[1] National Ambient Air Quality Standards for Ozone. EPA Final Rule. 80 FR 65292. October 26, 2015. https://www.govinfo.gov/content/pkg/FR-2015-10-26/pdf/2015-26594.pdf

Delaware's regulation 7 **DE Admin. Code** 1134, *Emission Banking and Trading Program* was developed to establish a voluntary emission banking and trading program. Delaware-specific regulations listed in the following sections are from 7 DE Admin. Code – Natural Resources and Environmental Control and will be referred to below by Regulation number, i.e. "Regulation 1134".

In accordance with Regulation 1134, Section 14.0, the Delaware Department of Natural Resource and Environmental Control's (DNREC) Division of Air Quality (AQ) is required to conduct periodic audits of its emission banking and trading program, to ensure that the goals of the program are being met. In accordance with Regulation 1134, Section 13.4, the audit will be legal noticed in two general circulation newspapers as well as posted on the Division's website on May 11, 2025, and included a public comment period of 30 days after publication of the notice, until June 10, 2025.

2.0 DELAWARE'S COMMITMENT TO IMPROVING AIR QUALITY

In Delaware, AQ is comprised of engineers, scientists and planners who work to protect human health and the environment. In addition to implementing a strictly regulated ERC program, Delaware AQ applies more stringent requirements on industrial sources than what is required by the CAA and federal regulations.

Emissions from any new sources must not impact the state's attainment or maintenance of the NAAQS and sources are required to have an air quality permit at very low levels. Equipment emitting more than 10 lbs pollution/day requires a permit.

AQ staff are highly trained to review the detailed permit applications and determine if the level of control the facility has proposed meets the rigorous control requirement established by state regulations. These air permits may require additional controls to minimize the impacts of emissions. In addition, the permits include monitoring, recordkeeping and reporting requirements. AQ staff inspect facilities on a routine basis to determine compliance with state and federal requirements.

Some additional examples of AQ's efforts to improve air quality in Delaware include, but are not limited to:

- Frequent development and revision of state regulations to reduce air pollution in all communities
- Programs to reduce vehicle and diesel emissions, promoting clean fuel and alternative vehicle use
- Strict 'open burning' policies throughout the state of Delaware
- Close collaboration with neighboring states and the EPA, ensuring all matters related to air pollution are handled in an efficient and timely fashion, keeping in line with (if not exceeding) federal regulations

3.0 EMISSION OFFSETS

In Delaware the generated ERCs are used to fulfill two emission offset requirements, Nonattainment New Source Review and Coastal Zone Act Program, as detailed below.

3.1 Nonattainment New Source Review

Major stationary sources of air pollution and major modifications to major stationary sources are required by the CAA to a obtain an air pollution permit before commencing construction. The process is called new source review (NSR) and is required when a major source or modification is planned for an area where the NAAQS are exceeded (non-attainment areas). Permits for sources in attainment areas are referred to as prevention of significant air quality deterioration (PSD) permits; while permits for sources located in non-attainment areas are referred to as Non-attainment Area (NAA) permits. The entire program, including both PSD and NAA permit reviews, is referred to as the NSR program. Non-attainment New Source Review (NNSR) requires new major sources, or major modifications at existing sources, within non-attainment areas to offset the annual emissions increase from the new source or modification and to provide a net air quality benefit (Regulation 1125). Emissions offset by NNSR are based upon nonattainment area classification severity, using a ratio, which is specified in Regulation 1125, Section 2.0.

Attainment or nonattainment status is determined for all areas of the country by EPA following the setting of a NAAQS. The first ozone NAAQS was set in 1971. This standard was a 1-hour standard for total photochemical oxidants at the level of 0.08 ppm.[2] In 1979, the standard was replaced with a 1-hour standard for ozone set at 0.12 ppm.[3] The EPA revised the 1-hour ozone NAAQS to an 8-hour NAAQS of 0.08 ppm (62 FR 38856)[4] in 1997, and again revised the ozone NAAQS to an 8-hour NAAQS of 0.075 ppm in 2008 (73 FR 16436).[5]

[2] Part 410 - National Primary and Secondary Ambient Air Quality Standards. EPA Final Rule. 36 FR 8186. April 30, 1971. https://archives.federalregister.gov/issue_slice/1971/4/30/8177-8201.pdf#page=10

[3] Part 50 - National Primary and Secondary Ambient Air Quality Standards. Revisions to the National Ambient Air Quality Standards for Photochemical Oxidants. EPA Final Rule. February 8, 1979. https://www.govinfo.gov/content/pkg/FR-1979-02-08/pdf/FR-1979-02-08.pdf

[4] National Ambient Air Quality Standards for Ozone. EPA Final Rule. 62 FR 38856. July 18, 1997. https://www.govinfo.gov/content/pkg/FR-1997-07-18/pdf/97-18580.pdf

[5] National Ambient Air Quality Standards for Ozone. EPA Final Rule. 73 FR 16436. March 27, 2008. https://www.govinfo.gov/content/pkg/FR-2008-03-27/pdf/E8-5645.pdf

On November 6, 1991 EPA designated New Castle and Kent Counties as severe non-attainment and Sussex County as marginal under the 1979 1-hour ozone NAAQS (56 FR 56694).[6] In order to prevent backsliding, Delaware still applies the following classifications from the 1979 1-hr ozone standard, as the most stringent, for offset requirements:

- Kent Co. - Severe under 1-hr standard; requires 1.3:1 offsets for nitrogen oxides (NOx) and volatile organic compounds (VOC)
- New Castle Co. - Severe under 1-hr standard; requires 1.3:1 offsets for NOx and VOC
- Sussex Co. - Marginal under 1-hr standard (but considered Moderate since Delaware is part of the Ozone Transport Region); requires 1.15:1 offsets for NOx and VOC

Per the Clean Air Act Section 173(c)(1)-(2), Offsets, emission offsets may be obtained from a non-attainment area which 1) is equal or higher in classification; and 2) contributes to nonattainment in the area.

In accordance with the Clean Air Act Section 173(c)(1)-(2), Offsets:

> *"(1) The owner or operator of a new or modified major stationary source may comply with any offset requirement in effect under this part for increased emissions of any air pollutant only by obtaining emission reductions of such air pollutant from the same source or other sources in the same nonattainment area, except that the State may allow the owner or operator of a source to obtain such emission reductions in another nonattainment area if (A) the other area has an equal or higher nonattainment classification than the area in which the source is located and (B) emissions from such other area contribute to a violation of the national ambient air quality standard in the nonattainment area in which the source is located. Such emission reductions shall be, by the time a new or modified source commences operation, in effect and enforceable and shall assure that the total tonnage of increased emissions of the air pollutant from the new or modified source shall be offset by an equal or greater reduction, as applicable, in the actual emissions of such air pollutant from the same or other sources in the area…"*

3.2 Coastal Zone Act Program

The Coastal Zone Act (CZA) Program regulates new and existing manufacturing and heavy industrial activities in Delaware's Coastal Zone, which generally runs the length of the state along the Delaware River, the Delaware Bay, the Inland Bays and the Atlantic Ocean, as shown in Figure 3-1.

[6] Designation of Areas for Air Quality Planning Purposes. EPA Final Rule. November 6, 1991. 56 FR 56694. https://www3.epa.gov/airquality/greenbook/frn/56fr56694nov61991.pdf

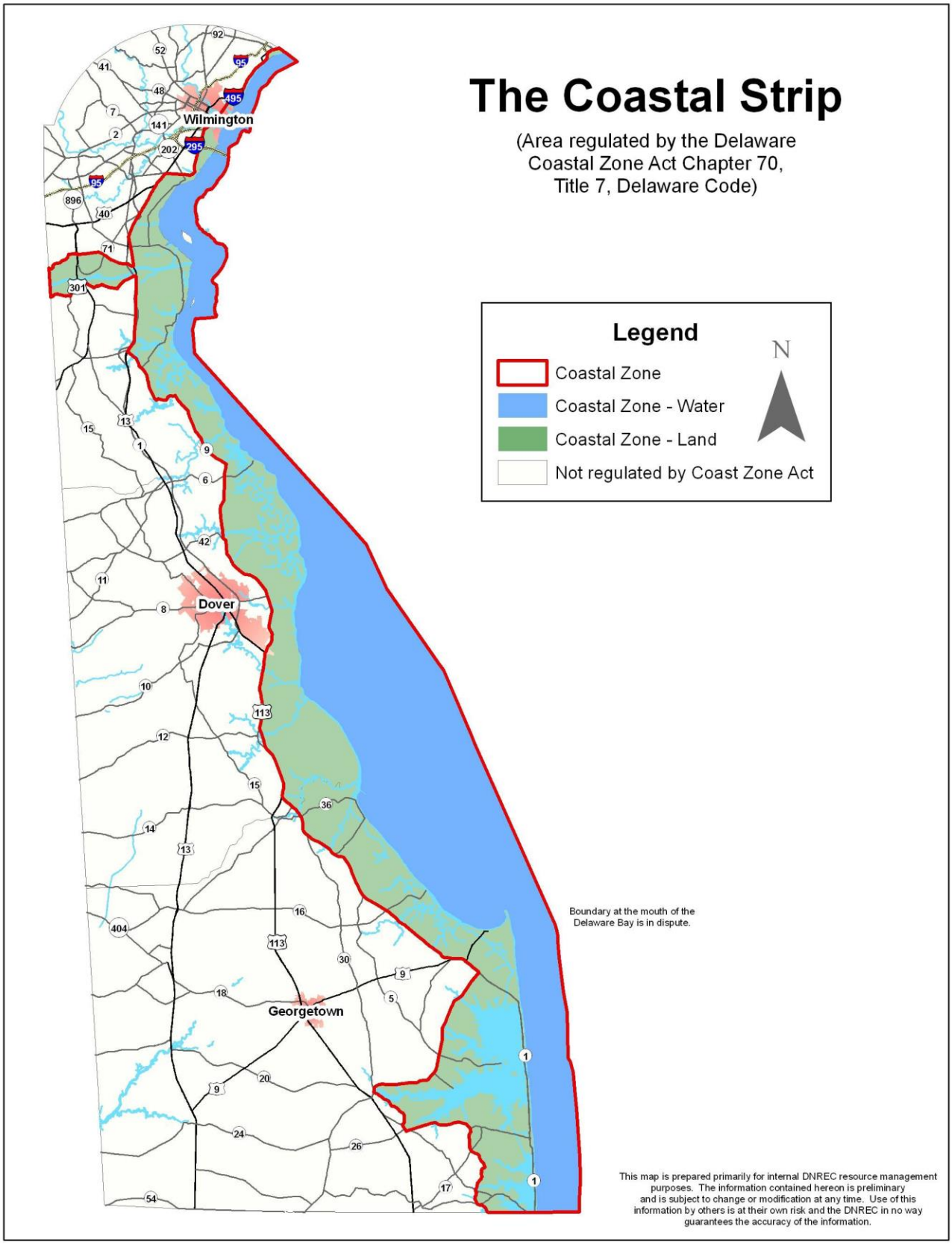

Figure 3-1 – The Delaware Coastal Zone Map

Delaware's CZA was passed in 1971. The intent was to "strike the correct balance between" introducing new industry to the state and protecting the state's environment, natural beauty, and outdoor recreation opportunities. The CZA provides to the Secretary of DNREC and the Coastal Zone Industrial Control Board the authority to promulgate regulations to carry out the requirements contained within the Act. DNREC's Coastal Zone Program was developed to accomplish two key goals:

1) Promote improvement of the environment within the Coastal Zone and
2) Providing existing and new industries in Delaware's Coastal Zone with the flexibility necessary to stay competitive and to prosper.

In accordance with Regulation 101, *Regulations Governing Delaware's Coastal Zone*, Section 9.0; projects that will result in negative environmental impact require an offset proposal for a project that benefits Delaware:

> *" 9.1.1 Any application for a permit for an activity or facility that will result in any negative environmental impact shall contain an offset proposal for a project that benefits Delaware. Offset projects shall more than offset the negative environmental impacts associated with the proposed project or activity requiring a permit, including on an annual basis, if applicable. The applicant shall propose an offset project that is clearly and demonstrably more beneficial to the environment in Delaware than the harm done by the negative environmental impacts associated with the proposed project."*

Companies have historically used AQ's ERCs as an option to fulfill the CZA requirements for project offsets.

4.0 EMISSION REDUCTION CREDITS

In Delaware, ERCs are created via requirements specified in Regulation 1134, Section 8.5:

> *"Prior to certifying an emission reduction, the Department will make the following adjustments to both the ozone season and non-ozone season emission reductions that are submitted to the Department for certification:*
>
> *8.5.1 Credit for all emission reductions, except any reductions generated by shutdowns or generated prior to October 6, 1997, will be reduced by the value of 10% of the total reductions to provide a net air quality benefit.*
>
> *8.5.2 Credit for emission reductions generated by shutdowns will be reduced by the value of 50% of the total reductions. 25% of the total reductions will be retired to provide a net air quality benefit and 25% will be held in a separate account by the Delaware Department of State, Division of Small Business, for economic development purposes after certification by the Department pursuant to 8.6 of this regulation.*
>
> *8.5.3 Credit for reductions generated before October 6, 1997 will be adjusted by a discount factor relating to the uncertainty of the emission estimation method used. The amount of the discount will be determined by the Department on a case-by-case basis. Factors that the Department will take into consideration in determining the uncertainty of the emission estimation method used include the nature of the reduction, the validity of the baseline data, and any previous review or inspection of relevant test methods by the Department. The Department will then reduce the adjusted amount by the value of 10% to provide a net air quality benefit."*

ERCs do not have an expiration date, and they are retired after use. They are only created for NOx and VOC, both of which are ozone precursors. Regulation 1134 specifies the various components of a typical banking system: qualifying emission reductions, quantifying emission reductions, certifying ERCs, banking and accounting of ERCs, and trading and use of ERCs.

In accordance with Regulation 1134, Section 8.5; for partial facility shutdowns, credits for emission reductions are reduced by the value of 10% of the total reductions to provide a net air quality benefit. For total facility shutdowns, 50% of the created ERCs are allotted to the applicant; 25% are allotted to the Division of Small Business for future economic development purposes; and 25% are immediately retired to provide a net air quality benefit. AQ tracks the creation, transfer, and use of ERCs. AQ does not own or sell credits. ERCs are created at the voluntary request by an applicant. Such requests must be submitted within 1 year after the emission reduction occurs.

ERCs are broken down into "ozone season" and "non-ozone season" for every calendar year. In Regulation 1134, ozone season is defined as the period between April 1 and October 31. Nonozone season would then be the period between November 1 and March 31.

4.1 Certification of Credits

Regulation 1134, Section 4.0 sets the guidelines for generating an Emission Reduction Credit:

> *"4.1 An emission reduction is valid as an ERC only after certification by the Department. Emission reductions generated for the purpose of creating ERCs must meet, at a minimum, all of the following criteria:*
>
> *4.1.1 The reductions must be created from decreases of VOC or NOx emissions;*
>
> *4.1.2 The emissions must be included in the 1990 or subsequent emission inventory;*
>
> *4.1.3 The reductions must have occurred after January 1, 1991;*
>
> *4.1.4 The emission reduction must be equal to or greater than one ton per year; and*
>
> *4.1.5 The reductions must be real, surplus, permanent, quantifiable, and enforceable."*

In accordance with Regulation 1134, Section 4.0, facilities that would like to create ERCs from shutdowns of facilities and/or equipment are required to submit an application for certification of an emission reduction to AQ. AQ reviews each application to determine if the reductions are real, surplus, permanent, quantifiable, and enforceable as defined in Regulation 1134, Section 2.0:

> *"Real (reductions) means reductions in actual emissions released into the atmosphere."*
>
> *"Surplus (reductions) means actual emission reductions below the baseline (see 6.0 of this regulation) not required by regulations or proposed regulations, and not used by the source to meet any state or federal regulatory requirement."* [7]
>
> *"Enforceable means any standard, requirement, limitation or condition established by an applicable federal or state regulation or specified in a permit issued or order entered thereunder, or contained in a SIP approved by the Administrator of the U.S. Environmental Protection Agency (EPA), and which can be enforced by the Department and the Administrator of the EPA."*

[7] In order to establish the amount of an emission reduction that is surplus and thus eligible for credit, an ozone season and a non-ozone season emission baseline must be established for each emission unit or units associated with a particular emission reduction. The formula for calculation of the ozone season and non-ozone season emission baselines can be found in Regulation 1134, Section 6.3.

"Permanent (reductions) means that the actual emission reductions submitted to the Department for certification have been incorporated in a permit or a permit condition or, in the case of a shutdown, the permit to operate for the emission unit or units has been voided."

"Quantifiable (reductions) means that the amount, rate and characteristics of emission reductions can be determined by methods that are considered reliable by the Department and the Administrator of the EPA."

Table 4-1 lists all facilities/businesses contributing to the Total Certified ERCs, starting from the most recent activity:

Table 4-1 – Individual Facility/Business ERC Contributions in Delaware

Facility/Business Name and Certification Date	VOC (tons)		NO_X (tons)	
	Ozone Season	Non-Ozone Season	Ozone Season	Non-Ozone Season
Delaware City Industries, LLC (DCI) to EcReCon, Inc. 4/02/2025:	-	-	-	-
Dassault Falcon Jet – Wilmington Corp. Shutdown 1/22/25:	**5**	**3**	**0**	**1**
Held by Dassault	3	1	0	1
Held by Division of Small Business	1	1	0	0
Retired by DNREC	1	1	0	0
Printpack Inc. 1/22/25:	**8**	**5**	**0**	**0**
Held by Printpack	4	3	0	0
Held by Division of Small Business	2	1	0	0
Retired by DNC	2	1	0	0
Transfer of all ERCs from Formosa to Veolia 9/11/19:	-	-	-	-
Formosa Shutdown 5/21/19:	**26**	**21**	**14**	**14**
Held by Formosa	13	11	7	7
Held by Division of Small Business	7	5	4	3
Retired by DNREC	6	5	3	4
Transfer of all ERCs from Chemours to Diamond State Port Corporation 5/15/18:	-	-	-	-

Facility/Business Name and Certification Date	VOC (tons)		NO_X (tons)	
	Ozone Season	Non-Ozone Season	Ozone Season	Non-Ozone Season
Chemours Edge Moor Shutdown 12/28/17:	**68**	**48**	**18**	**13**
Held by Chemours	34	24	9	7
Held by Division of Small Business	17	12	5	3
Retired by DNREC	17	12	4	3
Kaneka Shutdown 1/29/04:	**11**	**7**	**3**	**1**
Held by Delaware City Industries (DCI)	5	3	1	1
Held by Division of Small Business	3	2	1	0
Retired by DNREC	3	2	1	0
DuPont Holly Run Shutdown:	**0**	**0**	**13**	**9**
Held by DuPont	0	0	7	5
Held by Division of Small Business	0	0	3	2
Retired by DNREC	0	0	3	2
Metachem Shutdown:	**31**	**21**	**36**	**27**
Held by Division of Small Business	23	16	27	20
Retired by DNREC	8	5	9	7
Lafarge Shutdown:	**7**	**4**	**45**	**28**
Held by Lafarge	3	2	23	14
Held by Division of Small Business	2	1	11	7
Retired by DNREC	2	1	11	7
VPI Mirrex Shutdown:	**12**	**8**	**3**	**1**
Held by VPI	6	4	1	1
Held by Division of Small Business	3	2	1	0

Facility/Business Name and Certification Date	VOC (tons)		NO_X (tons)	
	Ozone Season	Non-Ozone Season	Ozone Season	Non-Ozone Season
Retired by DNREC	3	2	1	0
Chrysler Shutdown 10/12/10:	**233**	**156**	**17**	**40**
Held by 1734 LLC	117	78	9	20
Held by Division of Small Business	58	39	4	10
Retired by DNREC	58	39	4	10
Calpine Switch to Gas*:	**0**	**0**	**181**	**128**
Held by Calpine	0	0	164	116
Retired by DNREC	0	0	17	12
NRG Energy Center*:	**0**	**0**	**135**	**163**
Held by NRG	0	0	121	147
Retired by DNREC	0	0	14	16
NRG Indian River*:	**3**	**2**	**370**	**266**
Held by NRG	3	2	333	239
Retired by DNREC	0	0	37	27
Total Certified:	**404**	**275**	**835**	**691**

* In accordance with Regulation 1134, Section 8.5.1

Table 4-2 shows all ERCs used for Delaware-based projects:

Table 4-2 –Used ERCs for Delaware Projects

		VOC (tons)		NO_X (tons)	
		Ozone Season	Non-Ozone Season	Ozone Season	Non-Ozone Season
From:	**Used By:**				
Division of Small Business	FujiFilm (December 2021	-1	0	-1	-1
Division of Small Business	ArgoRefiner (2020)	-1	-1	0	-1
Veolia	Veolia (September 2019)	-9	-9	-3	-2
Division of Small Business	Essential Minerals (2018)	0	-2	0	-1
Division of Small Business	NALCO (2016)	0	0	0	-1
Division of Small Business	MAGCO (2016)	0	0	0	-3
Division of Small Business	Green Recovery Technologies (2015)	-1	-1	-4	-3
Division of Small Business	TECHMER (2015)	-4	-4	0	0
Division of Small Business	CRODA (2014)	-3	-1	-2	-1
Division of Small Business	MAGCO (2009)	0	0	-8	-5
Division of Small Business	Grantham Lane Associates (2009)	0	0	-1	-1
Division of Small Business	Tapeta under Coastal Zone Regulations (2007)	-1	0	-3	-2
Division of Small Business	Voight and Schweitzer under Coastal Zone Regulations (2007)	0	0	-4	-3

		VOC (tons)		**NO_X (tons)**	
		Ozone Season	Non-Ozone Season	Ozone Season	Non-Ozone Season
From:	**Used By:**				
DCI /Division of Small Business (VOC 1, non-ozone)	Uniqema under Coastal Zone Regulations (2004)	-2	-1	0	0
Division of Small Business	*Ion Power under Coastal Zone Regulations (2004)*	-1	0	0	0
Dupont	Red Lion NOx Compliance Program	0	0	-7	-5
Lafarge	Main Channel Deepening	0	0	-23	-14
Division of Small Business	CRODA	-3	-1	-2	-1
Division of Small Business	PBF	-11	-16	0	0
Calpine	Garrison Energy Center, LLC	0	0	-81	-57
Calpine	Hay Road Energy Center Compressor Upgrade	0	0	-56	-40
Baltimore Maryland Severe Nonattainment Area	*RecyClean Plastics under Coastal Zone Regulations (2002)**	0	0	-1	-1
Baltimore, Maryland Severe Nonattainment Area	*Printpack under Coastal Zone Regulations (2001)**	-23	-12	-2	-1
Total ERCs Used for Delaware Projects:		**-60**	**-48**	**-198**	**-143**

*These ERCs were purchased from Maryland but were applied to a project that was located in Delaware. Therefore, the potential emissions that were offset were originated from Delaware.

The current status of all of Delaware's ERCs, as certified by the Department pursuant to Regulation 1134, Emission Banking and Trading Program, since its inception are shown in Table 4-3:

Table 4-3 - The Current ERCs in Delaware

Held By:	VOC (tons)		NO_X (tons)	
	Ozone Season	Non-Ozone Season	Ozone Season	Non-Ozone Season
1734 LLC	117	78	9	20
Calpine	0	0	27	19
Dassault Falcon Jet- Wilmington Corp.	3	1	0	1
EcReCon, Inc.	4	2	1	1
Diamond State Port Corporation	34	24	9	7
DuPont	0	0	0	0
Lafarge	3	2	0	0
NRG Energy Center	0	0	121	147
NRG Indian River	3	2	333	239
Printpack Inc.	4	3	0	0
Veolia	4	2	4	5
VPI	6	4	1	1
Division of Small Business	89	53	31	22
Total Currently in Delaware's Bank (as of 4/15/25)	**267**	**171**	**536**	**462**

The current summary total of used, certified, and retired ERCs in Delaware are shown in Table 4-4:

Table 4-4 Delaware ERCs Summary Table

ERCs	VOC (tons)		NOX (tons)	
	Ozone Season	Non-Ozone Season	Ozone Season	Non-Ozone Season
Total Certified:	404	275	835	691
Retired:	-100	-68	-104	-88
Used from Delaware Bank:	-37	-36	-195	-141
Total In Bank	**267**	**171**	**536**	**462**

5.0 PROGRAM EVALUATION:

As part of the ERC program audit, AQ is required to evaluate the effectiveness of the program, as specified in Regulation 1134, Section 14.2:

> *"The Department shall conduct an audit of the emission banking and trading program within three years from October 6, 1997, and every three years thereafter to ensure that the program is achieving the goals specified in 1.0 of this regulation. The audits will evaluate whether the emission banking and trading program:*
>
> *14.2.1 Is consistent with the maintenance of NAAQS and does not interfere with Reasonable Further Progress (RFP) towards attainment of NAAQS;*
>
> *14.2.2 Requirements for monitoring, record keeping, reporting and enforcement have resulted in a sufficiently high level of compliance; and*
>
> *14.2.3 Has caused any localized adverse effects to the public health, safety or welfare or the environment."*

5.1 Section 14.2.1: Consistent with NAAQS

As shown below in Figure 5-1, ozone levels in Delaware have steadily declined since 1999. In addition, the most recent ozone levels for 2023 are below the 2015 8-hour ozone NAAQS of 0.070 ppm (80 FR 65292).[8] The continued decrease in ambient ozone concentrations demonstrates that the offset program is consistent with the maintenance of NAAQS.

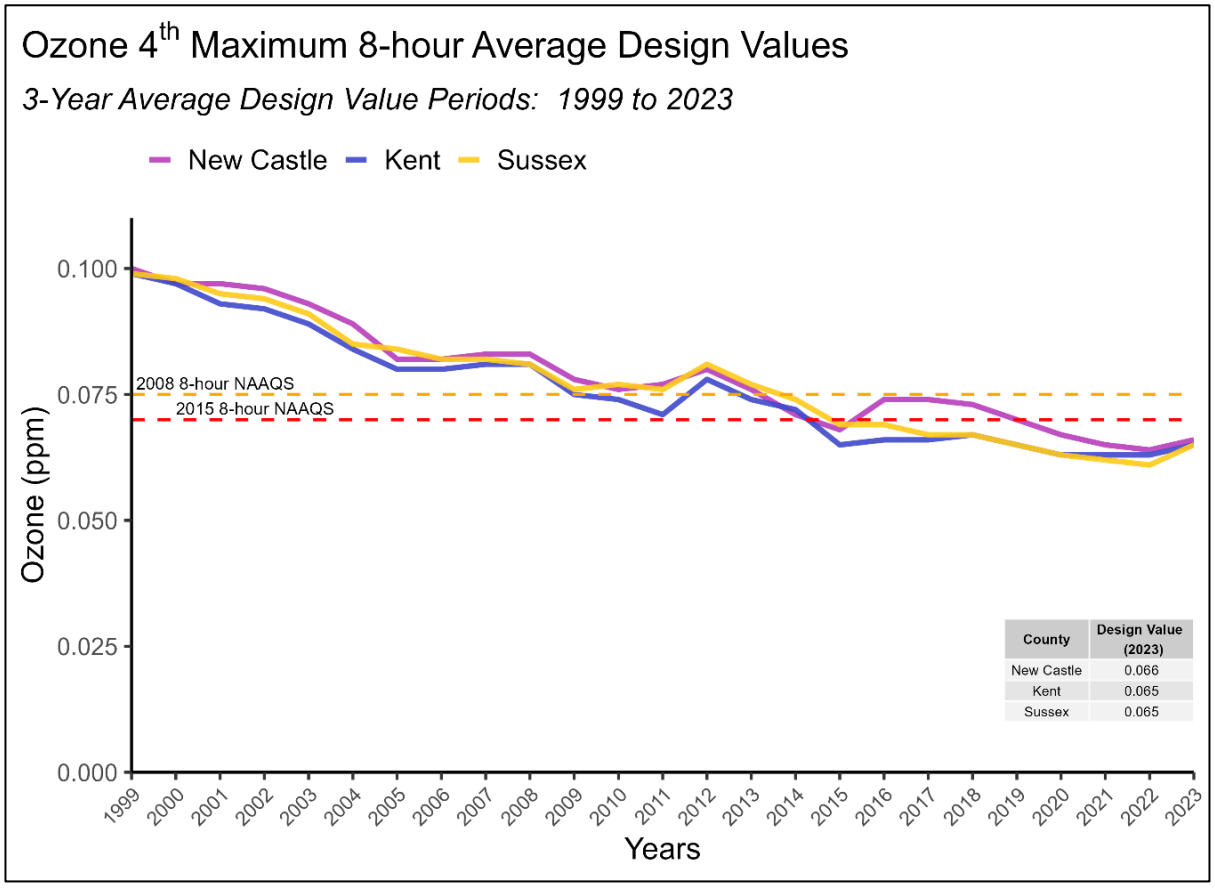

Figure 5-1 – County Level Ozone Values in Delaware

[8] National Ambient Air Quality Standards for Ozone. EPA Final Rule. 80 FR 65292. October 26, 2015. https://www.govinfo.gov/content/pkg/FR-2015-10-26/pdf/2015-26594.pdf

5.2 Section 14.2.1: Does Not Interfere with Reasonable Further Progress towards attainment of NAAQS

Reasonable further progress (RFP) means incremental reductions in emission of an air pollutant which are sufficient to provide for attainment of the NAAQS. Regulation 1134, Section 14.2.1 requires that Delaware evaluate the emission banking and trading program, to ensure that the program does not interfere with RFP:

> *"14.2 The Department shall conduct an audit of the emission banking and trading program…..The audits will evaluate whether the emission banking and trading program:*
>
> *14.2.1 Is consistent with the maintenance of NAAQS and does not interfere with Reasonable Further Progress (RFP) towards attainment of NAAQS;"*

Every three years, Delaware conducts an emissions inventory which is an accounting of the amount of pollutants discharged into the atmosphere. These inventories include the calculation of VOCs and NOx air emissions from point, nonpoint, and mobile sources. Actual VOC and NOx emissions from facilities are reported directly to AQ. Therefore, once a company has shut down there will be no more emissions from that facility and/or unit in the inventory.

Changes in emissions over time can be analyzed by looking at differences between individual inventories. For the purposes of the 2015 8-hour Ozone NAAQS, the CAA requires a demonstration that areas classified moderate and above, demonstrate RFP towards attainment of the NAAQS by achieving at least a 15% emissions reduction of VOCs and NOx.[9]

New Castle County is the only county in Delaware that is classified as non-attainment for the 2015 Ozone NAAQS. New Castle County is currently classified as serious non-attainment for the 2015 Ozone NAAQS. Kent and Sussex counties have been classified by EPA as in attainment with the 2015 Ozone NAAQS.[10] As stated in Regulation 1134, Section 14.2.1, RFP is used to determined progress towards the attainment of the NAAQS. Since Kent and Sussex counties have been classified by EPA as in attainment with the 2015 Ozone NAAQS, Delaware is only conducting an RFP analysis for New Castle County in this audit.

As shown in Table 5-1, the NOx and VOC emission levels in ton per day (tpd) for the 2023 Projected Attainment Inventory are below the NOx and VOC target emission levels. This indicates Delaware has met the RFP requirements for NOx and VOC reductions.

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[9] Delaware State Implementation Plan Revision Moderate Non-Attainment Plan For New Castle County For The 2015 8-Hour Ozone National Ambient Air Quality Standard. Final Proposal. November 28, 2023. https://documents.dnrec.delaware.gov/Admin/Hearings/2023-R-A-0016-0017/exhibits/0016/Final-Attainment-Plan.pdf

[10] Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards (NAAQS). EPA Final Rule. 83 FR 25776. June 4, 2018. https://www.govinfo.gov/content/pkg/FR-2018-06-04/pdf/2018-11838.pdf

Table 5-1 – New Castle County RFP 2023 Target Levels to Projected Inventory

Description	NOx Emissions (tpd)	VOC Emissions (tpd)
2023 Target Levels	37.72	24.73
2023 Projected Inventory	34.26	24.22

5.3 Section 14.2.2: Program Compliance

Facilities that would like to create ERCs from shutdowns of facilities and/or equipment are required to submit an application for certification of an emission reduction to AQ. AQ then reviews the request to determine if it is true, accurate and complete. To ensure that the ERCs are permanent, AQ conducts inspections to ensure that facilities are permanently shut down. Periodic inspections of operating facilities ensure that specific pieces of equipment are permanently rendered inoperable or removed from the site.

5.4 Section 14.2.3 Effects to the Public Health, Safety or Welfare or the Environment

As shown in Figure 5-1, the most recent ozone levels for 2023 are below the 2015 8-hour ozone NAAQS of 0.070 ppm. Therefore, Delaware is currently meeting the current health-based ozone NAAQS.

6.0 CONCLUSION

This report shows that the program, as outlined by Regulation 1134, is meeting the goals listed in Sections 1.0 and 14.2 of the regulation. AQ does not recommend any changes to the regulation at this time.