State of New Jersey
DEPARTMENT of ENVIRONMENTAL PROTECTION
Division of Air Quality, 401 E. State Street, 2nd floor, P.O. Box 420, Mail Code 401-02, Trenton, NJ 08625-0420

BANKING AND SECURING AIR EMISSION CREDITS – NJDEP GUIDANCE DOCUMENT

Disclaimer: This document clarifies some of the requirements included in N.J.A.C. 7:27-18. If there is a discrepancy between language in this document and language in N.J.A.C. 7:27-18, the language in N.J.A.C. 7:27-18 shall prevail.

I. Banking Emission Credits - N.J.A.C. 7:27-18

1. Banking applies to equipment shutdown or over-control of air emissions.
2. Emissions banked are actual emissions from the piece of equipment.
3. Actual emissions are as defined in N.J.A.C. 7:27-18.1.
4. Banking application must be submitted to the Department no later than 12 months after emission reductions occur.
5. For shutdown equipment, the Department must be notified at least 60 days prior to removal of equipment.
6. Emission credits retain their full value and are not discounted until they are proposed to be used as emission offsets.
7. When proposed to be used as emission offsets, banked emission credits will be adjusted if any rule decreases the amount of allowable emissions pursuant to N.J.A.C 7:27-18.8(e).
8. Emission credits (from shutdown) will also be adjusted for time discounts as per N.J.A.C 7:27-18.8 (f) & (g).
9. Time discount clock stops when credits are proposed to be used as emission offsets and applied to a specific project (through a permit application).
10. Emission credits proposed to be used as emission offsets and applied to a specific project (through a permit application) are not available for use again, whether the project goes to completion or not.

II. Securing Emission Credits - N.J.A.C. 7:27-18

Step 1: How many Creditable Emission Reductions (CER) do I need to secure for my project?

The CER needed to be secured for a project are equal to the value of "NI" calculated using the equation in N.J.A.C 7:27-18.7.

Step 2: What is the discounted value of the banked emission credits (BEC) that I have identified for this project?

1. Identify sources with banked emission credits by checking "**Banked Emission Credits**" at http://www.state.nj.us/dep/aqpp/bec.html

2. Calculate the discounted value of the BEC identified above:

Discounted Value = BEC * RD * TD / OR where:

RD = **Rule Discount** calculated in accordance with N.J.A.C 7:27-18.8(e)

RD = 1.0 if no applicable rule change took effect.
RD = 1.0 if actual emission rate of source (when banking took place) is lower than new applicable standard.
RD = Ratio of new applicable standard to actual emission rate, if the rule standard has changed since banking occurred.

TD = **Time Discount** calculated in accordance with N.J.A.C 7:27-18.8(f) & (g)

TD = 1.0 if BEC are from over-control of emissions (no time discount applies)
TD = 1.0 if BEC are less than 5 years old
TD = 0.5 if BEC are more than 5, but less than 10 years old
TD = 0.0 if BEC are 10 years old or older

OR = Offset Ratio from Table 2 at N.J.A.C 7:27-18.5

3. Compare the CER needed for the project and the discounted value of the banked credits, as calculated above, to verify if sufficient CER have been identified. If the identified CER are not sufficient, the facility must identify additional sources of BEC.

Note: If banked emission credits (BEC) are needed from more than one source, the total discounted value of the BEC for the project will be sum of the discounted value of the BEC calculated for each source individually.

Example 1

- NI =100 TPY NOx emission offsets needed for the project.
- BEC = 450 TPY identified from a turbine shutdown.
- Emission credits for the turbine were banked 7 years ago.
- BEC source is located 120 miles from the proposed project location.
- Applicable rule standard was 0.15 lb/MMBTU at the time when emission credits were banked. The current standard is 0.08 lb/MMBTU.
- Actual emission rate from the CER source is 0.12 lb/MMBTU

Step 1: How many CER do I need to secure for my project?

CER needed for the project = NI = 100 TPY

Step 2: What is the discounted value of the BEC identified?

Discounted Value = BEC * RD * TD / OR = 450 * (0.08/0.12) * 0.5 / 2.6 = 58 TPY

(In this example RD is ratio of new rule standard to actual emission rate of source)

Since 100 TPY of CER are needed for the project and only 58 TPY are available from the already identified source, additional BEC with a discounted value of 42 TPY (100 – 58) are needed for the project.

Example 2

- NI = 60 TPY VOC emission offsets needed for the project.
- BEC = 100 TPY from a boiler shutdown.
- Emission credits were banked 2 years ago.
- BEC source is located 60 miles from the proposed project location
- Applicable rule standard changed from 0.03 lb/MMBTU to 0.02 lb/MMBTU.
- Actual emission rate from BEC source is 0.015 lb/MMBTU

Step 1: How many CER do I need to secure for my project?

CER needed for the project = NI =60 TPY

Step 2: What is the discounted value of the BEC identified?

Discounted Value = BEC * RD * TD / OR = 100 * 1.0 * 1.0 / 1.3 = 77 TPY

(In this example RD is 1.0 since the actual emission rate is lower than the new standard)

Since 60 TPY of CER are needed for the project and the BEC identified has a discounted value of 77 TPY, all the CER needed for the project can be secured from this one source.

Example 3

- NI =100 TPY NOx emission offsets needed for the project.
- BEC1 = 300 TPY identified from a turbine shutdown. The turbine emission credits were banked 7 years ago and this source is located 120 miles from the proposed project location.

- BEC2 = 200 TPY identified from a boiler shutdown. The boiler emission credits were banked 2 years ago and this source is located 40 miles from the proposed project location.
- Applicable rule standard for the turbine was 0.15 lb/MMBTU at the time when emission credits were banked. The current standard is 0.08 lb/MMBTU.
- Actual emission rate from the turbine is 0.11 lb/MMBTU

- Applicable rule standard for the boiler was 0.12 lb/MMBTU at the time when emission credits were banked. The current standard is 0.05 lb/MMBTU.
- Actual emission rate from the boiler is 0.10 lb/MMBTU

Step 1: How many CER do I need to secure for my project?

CER needed for the project = NI = 100 TPY

Step 2: What is the discounted value of the BEC identified?

Discounted Value (turbine) = BEC1 * RD * TD / OR = 300 * (0.08/0.11) * 0.5 / 2.6 = **42** TPY
Discounted Value (boiler) = BEC2 * RD * TD / OR = 200 * (0.05/0.1) * 1.0 / 1.3 = **76** TPY

Since 100 TPY of CER are needed for the project and 118 TPY (42 + 76) are available from the two identified sources, all the CER needed for this project can be secured from these two sources.