# refrigerant Impacts

### Credit 26

### Design Review Submission As Built Submission

|  |  |  |  |
| --- | --- | --- | --- |
| Total Points available: | 1 | Points claimed: | [#] |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Name | Description | Points Available | Points Claimed |
| **26** | **Refrigerant Impacts** | One of the following criteria is achieved:   * The combined Total System Direct Environmental (TSDEI) Impact of the refrigerant systems servicing the fitout is less than 15; or * The combined Total System Direct Environment Impact (TSDEI) of the refrigerant systems is between 15 and 35, AND a leak detection system is in place; or * All refrigerants used in the project have an ozone depleting potential (ODP) of 0 and a global warming potential (GWP) of less than 10. | 1 |  |

## Project-specific technical questions (formerly tcs and cirs)

|  |  |
| --- | --- |
| There are no project-specific Technical Questions for this credit. |  |
| There are project-specific Technical Questions for this credit and all responses received from the NZGBC are attached. |  |

Refrigerant Impacts

Please select one of the following options:

|  |  |
| --- | --- |
| No air-conditioning or refrigeration equipment is installed or upgraded as part of the fitout works, and this credit is ‘Not Applicable’. |  |
| Air-conditioning or refrigeration equipment installed or upgraded as part of the fitout works meets the credit criteria, as demonstrated below. |  |

The project demonstrates compliance using one of the following pathways:

|  |  |
| --- | --- |
| **26.2A** The Total System Direct Environmental Impact (TSDEI) of the refrigeration equipment and systems in the building is less than 15. |  |
| **26.2B** The Total System Direct Environment Impact (TSDEI) of the refrigeration equipment and systems in the building is between 15 and 35, and a leak detection system is in place. |  |
| **26.2C** All refrigerants used in the project have an ozone depleting potential (ODP) of 0 and a global warming potential (GWP) of less than 10 |  |

Provide a list of nominated systems to be included in the credit clearly outlining refrigeration equipment and the amount and type of refrigerant used.

Provide a summary of the commissioning activities, clearly outlining refrigerant-based equipment.

|  |  |
| --- | --- |
| The commissioning has taken place according to the above summary. |  |

Identify where this information can be found within the supporting documentation provided.

|  |  |
| --- | --- |
| **Supporting Documentation** (Name / title / description of document) | **Reference** (Page no. or section) |
| [####] | [####] |
| [####] | [####] |

26.2A Summary Table - TSDEI Calculations

The results from the Impacts from the Green Star *Impacts from Refrigerants Calculator* summarised as follows:

|  |  |
| --- | --- |
| **Calculator Item** | **Result** |
| Sum of DEI x Plant Cooling Capacity |  |
| Sum of Cooling Capacity of all Rated Equipment |  |
| Total System Direct Environmental Impact (TSDEI) of Refrigerants |  |

Identify where this information can be found within the supporting documentation provided.

|  |  |
| --- | --- |
| **Supporting Documentation** (Name / title / description of document) | **Reference** (Page no. or section) |
| Green Star Impacts from Refrigerants Calculator | [####] |
| [####] | [####] |

26.2B Leak Detection systems

|  |  |
| --- | --- |
| The TSDEI is between 15 and 35 |  |
| A leak detection system is in place |  |
| The leak detection system includes an automated refrigerant recovery system which: |  |
| * Is capable of recovering 95% (by weight) of the maximum refrigerant charge |  |
| * Pumps the refrigerant to a dedicated refrigerant storage tank |  |
| * Does *not* pump refrigerant to other parts of the chiller or to portable storage cylinder |  |

Provide a summary of all leak detection systems:

Identify where this information can be found within the supporting documentation provided.

|  |  |
| --- | --- |
| **Supporting Documentation** (Name / title / description of document) | **Reference** (Page no. or section) |
| Green Star Impacts from Refrigerants Calculator | [####] |
| [####] | [####] |

26.2C Low impact refrigerants - Summary Table

|  |  |
| --- | --- |
| All refrigerants used have an ODP of 0 |  |
| All refrigerants used have a GWP of less than 10 |  |

|  |  |  |
| --- | --- | --- |
| **Refrigerant name/R number** | **GWP** | **ODP** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Identify where this information can be found within the supporting documentation provided.

|  |  |
| --- | --- |
| **Supporting Documentation** (Name / title / description of document) | **Reference** (Page no. or section) |
| [####] | [####] |
| [####] | [####] |

## DISCUSSION

Outline any issues you would like to highlight and clarify with the Assessment Panel.

## DECLARATION

I confirm that the information provided in this document is truthful and accurate at the time of completion.

Provide author details, including name, position and email address:

[Date]

––– **Report end** –––