

**COPE Report**      **Nieuw Gildestein/ GDL** (Gemeenschappelijk Dieren Laboratorium)  
**Adress:**            **Bolognelaan 50, Utrecht**  
**Report of**            Wout Jan Weide            date of visit 22/04/2024  
**Participants:**        Mr Benno Vedderts (Facility Manager UU)  
                              Mr Ruud van Zanten (Fire protection engineer UU)  
                              Mrs Marian Verhagen (Facility Management Diergeneeskunde UU)  
                              Mrs Astrid Drenth (Aon Risk Consulting)  
                              Mr Mahran Altawil (Chubb)  
                              Mr Wout Jan Weide (Chubb Risk Engineer, writer of this report)

**Introduction:**

The University of Utrecht was visited April 22nd, 2024 for a survey to get an impression of the exposures and controls. The building is a laboratory for veterinary studies especially for laboratory animals. The building is partly in use by the academic hospital and partly by the university. As the number of laboratory animals is decreasing a large part of the site is vacant (however fully under supervision of the facility management and therefore not classified vacant property).

Number of stories:        4                            Year built: 1970

(Main) NIACs Code: 611311 A property class 6

**OCCUPATION:**

The building is in use by the veterinary study of the university of Utrecht and the academic hospital Utrecht (UMCU). The building houses laboratory animals including mice, rats, dogs, goats, guinea pigs, rabbits, pigs, mini pigs. As the number of animals strongly reduced (birds are not present anymore but also the number reduced) many stables (about 70 %) are vacant. As the building has a very good entrance control system and all parts are under good supervision of the facility management this is certainly not a vacant property (no risk of squatting or what so ever). There are plans to leave the building in 2030. To where and in what form the operations will be relocated is not known yet. Most probably this will still be a co-operation between the university and the UMCG.

Special operations in this building are:

- Two NMR's (of 7 and 9.4 Tesla). A NMR is comparable to a MRI, but more to determine the molecules of a certain substance in stead of people) The replacement time of these systems is about 2 years.
- 6 surgery suites (for small to larger animals (a pig is probably the largest animal). One of the suites has also a C-curved X-ray scanner (old but still working).
- A Micro CT-scanner (old but still working)
- 5 autoclaves for the cleaning of research and surgery equipment. Some of these autoclaves are idle and out of service.
- A cage washing robot. As the number of animals strongly reduced the robot is not really required anymore. However to keep it operational the robot is only in use for a couple of hours per week. Larger cages can not be cleaned in the robot and are passing a washing street.

**CONSTRUCTION:**

The building has a FR construction (heavy concrete). The total building is made of heavy concrete also to protect the equipment from vibrations and magnetic influences from the outside and to protect the outside from the magnetic fields. On top of the concrete roof is probably a foam plastic insulation present, covered with a roof felt and a layer of gravel. The roof is in fair condition and needs quite often a repair. For the remaining period it is not the intention to apply a new roof felt. At present there are no leakages.

Chubb Fire Construction Class: FR (100%)

Internal combustible panels: None

External combustible panels: None

Superior Protected Risk: No

**LOSS ESTIMATES:**

Nieuw Gildestein / GDL (Gemeenschappelijk Dieren Laboratorium)

|                                | PD            | BI over 36 months               |
|--------------------------------|---------------|---------------------------------|
| TIV (Three buildings together) | € 124.117.000 | € 50.000.000,- (extra expenses) |
| Amount Subject                 | 100 %         | 20 %                            |
| PML                            | 50%           | 50 %                            |
| NLE                            | 30 %          | 50 %                            |

The building has the dimensions of 108 by 95 meters and is subdivided into many rooms and light partitions. However the number of partitions is huge. In 2017 many cable and pipe penetrations were open but these are all adequately sealed off by a specialized contractor (rec complied with). Therefore the Amount subject is officially 100 % as there are no 4 hour rated walls present. The PML is set at 50 % as it is expected that the fire brigade will be able to save a part of the construction and contents due to the limited fire load inside the building and the large number of partitions that are normally always in closed position (also to prevent infections between animals). If the fire detection generates an alarm and the fire brigade is alarmed in an early phase (NLE scenario) the loss will be limited to a part of the building, however smoke, soot and extinguishing water might cause additional loss. Conservatively the NLE is set at 30 %.

Special attention needs to be given. In perspective of the insured properties it can be mentioned that most of the equipment is pretty old but normally maintained. However these are certainly out dated. Laboratory animals have a special breeding program and might be difficult to replace (will last a longer period).

|                                  |      |                                   |     |
|----------------------------------|------|-----------------------------------|-----|
| Water supplies for firefighting: | AAA  | Fire brigade                      | AAA |
| Management Controls              | AA   | Risk Alert                        | No  |
| % of location sprinkled          | 0    | % of location requiring sprinkler | 0   |
| Chubb grade Serious Deficiency   | No   |                                   |     |
| Smoke detectors                  | AA   |                                   |     |
| Burglary alarm                   | AA   |                                   |     |
| RPF other factors                | none |                                   |     |

**PROTECTION:**

The water supply is by means of underground hydrants good. The public professional fire brigade arrives in 10 minutes. The fire alarm is directly forwarded to the central station. The buildings are provided with fire detection in combination with compartmentalization. The fire brigade is instructed that they are not allowed to bring any steel parts into the NMR department. Extinguishers are made of aluminium (nonmagnetic). The compartmentalisation is classified adequate, especially in relation to the fire load, but it has to be mentioned that there are some high value rooms present (NMR-rooms, surgery suites etc.). According to the "university fire directive" automatic sprinklers should be considered, however for the remaining period this will not be done. The fire load is in general quite low that compartmentalization might result in loss reduction as well.

The laboratory animals will not be saved. Some of these have diseases that might not be spread. The present protection is classified adequate.

A burglary alarm system is installed. Alarm follow up is done by a security service with the station around the corner (less than 1 minute drive). The building has also a good entrance control system. Only a limited number of students and staff are allowed in this building.

**Evaluation of Exposures:**

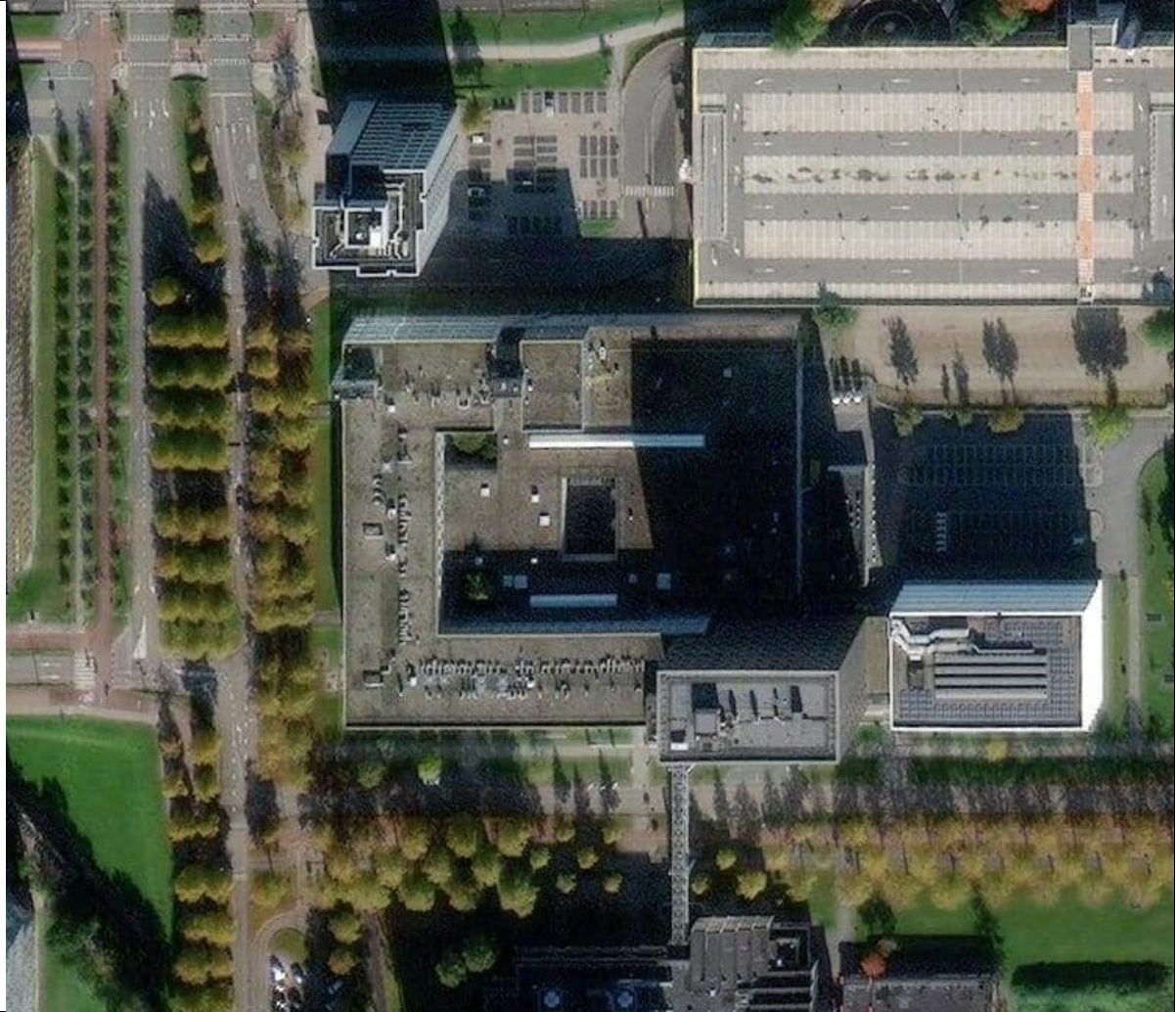
Helium: Helium is a non-combustible gas that is used for cooling and prevent quenching of the NMR. The gas is expensive but not hazardous (for fire or explosion). Helium spills are collected in a kind of balloon in the NMR room and via a pumping device recycled for re-use. This process is adequate controlled.

Coffee machines: A general recommendation is made to provide coffee machines with water locks (see rec.).

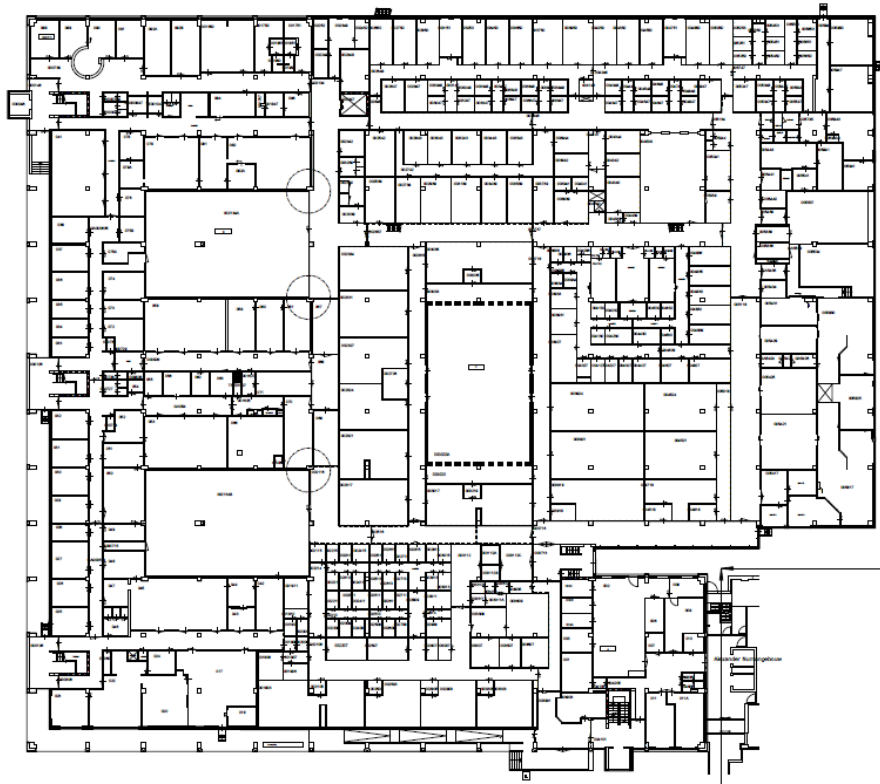
Fire hazards: The fire hazards are limited to the electrical installation. The electrical installation is checked in accordance with the local standards NEN 3140 including infrared scanning. The cable penetrations are properly sealed off by a specialized contractor. Most probably smoke and soot can result into faulty measurements by these very accurate systems. Therefore, even after a limited fire loss the contamination might result into very high replacement / cleaning costs. Electrical apparatus is checked by the maintenance service and labelled after approval once per two years.

Water damage: The coffee machines are connected to the tap water system without a water lock (see rec.). The roof is in fair conditions and should normally be replaced / provided with a new roof felt. As there are plans to leave the building in about 6 years no large investments are being done anymore. Repairs are done where necessary. At present the roof has no leakages but the risk for a water damage is increased.

Next door buildings: The Nieuw Gildestein building is interconnected with the next door Alexander Numanbuidling (attached and interconnected at two locations via a 60 minutes fire retardant door, that is always in closed position). At the opposite side of the road is the Androclusbuilding at 60 meters distance. There is a bridge (single floor) between these buildings, most probably with a combustible construction. The corridor is at both sides provided with a 30 minutes fire retardant partition.



Overview of the buildings. In the middle: Nieuw Gildestein / GDL, right top a parking garage of the academic hospital at 6 meters distance, the high rise attached to Nieuw Gildestein is the Alexander Numanbuilding and right LSI. At the bottom, connected by the bridge is the Androclus building.



**Ground floor**

**Overall a fair risk especially in regards of water damage controls. For fire fair to average risk.**



Left Nieuw Gildestein and at the rear Alexander Numan and LSI buildings including the bridge to Androclus)



Alexander Numan building is partly constructed over Nieuw Gildestein



The older roof



One of the surgery suites including C-bow (X-ray)



Utility rooms are free of storage



Pipe and cable penetrations through the floor adequate sealed and located at an elevated floor (good for water damage controls)



One of the vacant rooms



Cage washing robot



Wood chip system. Free of dust and therefore not classified as explosion hazard



One of the corridors (nearly free of combustibles)

## **AANBEVELINGEN:**

### **2024-01            Brandwerende deuren kelder**

In de kelder zijn enkele brandwerende deuren aanwezig die niet automatisch sluiten. De vuurlast is in de kelder aanzienlijk waardoor de noodzaak van goed sluitende deuren nog groter is. Aanbevolen wordt de deuren te herstellen en vaker op de goede werking te controleren.

### **2024-02            Watersloten**

Koffie-automaten zijn op de waterleiding aangesloten via een kunststof slangetje. Watersloten zijn niet geïnstalleerd. Na verloop van tijd kan de slang open barsten en kan water onbeperkt uitstromen en voor een grote waterschade zorgen. Om een dergelijke schade te voorkomen worden watersloten aanbevolen waarbij getoetst moet worden of het waterslot na een slangbreuk van de toegepaste (dunne) slang ook daadwerkelijk dicht gaat. Indien dit niet het geval is dient een ander type slang gebruikt te worden.

### **2024-03            NMR techniekruimte**

In de technische ruimte van de NMR is een aanzienlijke hoeveelheid opslag aanwezig waardoor bij een onverhoopte brand het risico van een oncontroleerbare situatie toeneemt. Aanbevolen wordt om de opslag uit de genoemde techniekruimte te verwijderen en periodiek te controleren of de ruimte nog steeds vrij van opslag is.

### **2024-04            Verzekerde waarden**

In het GDL (Gemeenschappelijk Dieren Laboratorium / Nieuw Gildestein) staan vele ruimten leeg of is apparatuur niet meer in gebruik. Tijdens het bezoek is het niet duidelijk of de verzekerde som hierop is aangepast. Geadviseerd wordt om de verzekerde waarde in overleg met uw verzekeringsmakelaar Aon en eventueel uw taxateur te controleren.